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EDITORIAL—SOME HIGHLIGHTS

I. General Economic Scene

State :

Drought and Scarcity: The State is in the grip of serious scarcity conditions as it ended 1974. The South West monsoon was six weeks late (See Vol. IV page 593), with the result that the Kuruvai acreage was 4 lakhs in Thanjavur instead of 5 lakhs and the rice yield was only 5 lakh tonnes against 1973's 15 lakh tonnes. The North East monsoon failed, with the State receiving only 35 per cent of the normal season's rainfall. The immediate result is that Ramanathapuram, Pudukottai, Tirunelveli, Coimbatore, Madurai, Tiruchi and Salem districts have become drought stricken with wells, ponds and tanks being dried up, causing acute scarcity of drinking water and the crops withering and drying. The Government estimates that the Samba crop has been raised only on 27 lakh acres against the normal 37 lakh acres with a low yield on the smaller acreage and the prospects for Thaladi being dim. Even in Chingleput and North Arcot districts which are not classed as drought stricken, all tanks except those at Uttaramerur and Madurantakam have gone dry in the former and tanks in Arkonam, Chengam, Polur and Tiruvannamalai in the latter district have gone dry so that of its 3.4 lakh acres of wet land, 1.2 lakh acres are barren and crops on 32,000 acres withering. People's suffering from lack of water and food is intense in Coimbatore, Palladem and Avinashi taluks of Coimbatore district and in the Thiruvadanai, Ramanathapuram and Mudukalthur blocks of Ramanathapuram district. In Madras city water supply is being further restricted. The further reasons aggravating the scarcity conditions and the suffering of the people are the expected serious short fall in rice availability this year which the government puts at 37 lakh tonnes against the normal 57 lakh tonnes—a shortage of 20 lakhs, the shortfall of 2 lakh tonnes in last year's output (55 lakh tonnes instead of 57 lakh tonnes), plus 1 lakh tonnes contributed to the Central pool and other states (See Vol. IV, pages 205, 285–286, 410 and 435) the lifting of the movement restriction in Thanjavur last June (See Vol. IV, page 527) which led to the large scale movement outside the State, the hoarding of stocks by merchants and large farmers (even against a Kuruvai production of 4 lakh tonnes in Thanjavur, a procurement of 1 lakh tonnes means that there is another 1½ lakh tonnes being withheld) and the scarcity of coarse grains which have moved out of the State in response to higher prices in the Northern States. Prices which began declining (See Vol. IV, pages 665-666) began moving up. Rice prices rose up or were maintained at a high level of Rs. 3.60 to Rs. 4.30 per kg. in the open market and at Rs. 2 per kg. for those on the ration. Under these conditions the government is taking a series of measures to deal with the grave scarcity situation. (a) Rs. 5 crores have been alloted to the drought stricken districts, of which Rs. 1 crore are for deepening dry wells for drinking water provision and Rs. 1 crore are for repairs to irrigation channels and for minor irrigation schemes. (b) The

Union Government has been approached to make drought relief grants of Rs. 5 crores. (c) It has also been requested to allot 1 lakh tonnes of rice a month for the duration of the emergency which will be till next November (d) A secretaries committee has been set up with the chief secretary as Chairman to keep under review the production, distribution and procurement aspects of the food problem. As pointed out in the Bulletin (Vol. IV page 579), the problem here is the lack of evaluative studies on the rice distribution system in the State so that the committee will have to work on an ad hoc basis, using hunches. (e) The government has deputed 6 members of the Board of Revenue for on the spot study of drought conditions, one covering North Arcot and Dharmapuri, a second Chingleput and Coimbatore, a third Tiruchi and South Arcot, a fourth Thanjavur and Salem, a a fifth Madurai and Ramanathapuram and a sixth Tirunelveli and Pudukottai and on the basis of their reports will decide on the further relief measures to be undertaken. (f) The government is also preparing itself to introduce a rationing system, and has asked the secretaries committee to work on this. Here again the necessary back up studies do not exist, the distribution net work of fair price shops and co-operatives have been used to working in conditions of rice surplus and they have their normal share of corruption and malpractices, (the government's estimate that of 11,801 co-operatives with a turn over of Rs. 617 crores, only 359 are under suspicion is probably an under estimate), a ration system needs a buffer stock of 8 lakh tonnes of rice of which less than 25 per cent is likely to be available, and the covering of the rural areas where there is the greatest impact of hunger and starvation is difficult because of the lack of data. (g) on the basis of the reports from the Board of Revenue members, the government will also decide on remission of taxes, loan repayments etc. (h) The exemption of 50 cents to one acre owners from levy procurement (See Vol. IV page 635) has been removed in the case of lands covered by the river irrigation systems. (i) The government has fixed a ceiling on retail prices of rice to different districts at Rs. 1.90 per kg. for coarse, Rs. 2 for medium and Rs. 2.10 for fine and Rs. 2.20 for superfine varieties. The low income group will pay Rs. 1.60 per kg., Rs. 1.70, Rs. 1.80, Rs. 1 90 for the four varieties. These price ceilings will be difficult to enforce without a buffer of 10 to 12 lakh tonnes and the announcement without Union clearance may simply lead to disappearance of rice stocks from the shops. (j) Without going so far as to prohibit private wholesale dealings in rice (See Vol. IV, page 620), the Government has decided that levy procurement will be in the hands of the Civil Supplies Corporation and throughout the State, co-operatives will buy stocks in supplus areas at prices higher than the procurement rates per quintal at Rs. 95 for coarse, Rs. 100 for medium, Rs. 105 for fine and Rs. 110 for superfine varieties, as in these areas there will be no wholesale trading. (k) The Government has obtained a large allotment of diesel from the Union Government and has asked co-operatives to grant loans for installing diesel pump sets, with a Rs. 1,000 subsidy for buying pump sets by farmers, it has instructed the Electricity Board to energise 60,000 pump sets immediately and has given priority to power provisions to agriculture. The effects on the States Water table will have to be watched. (l) Farmers are being encouraged to grow pulses, cholam, cumbu and varagu to replace rice under the dry conditions. As a short term measure this will help the group most seriously affected by the drought, the poor majority. In fact in December the forecast of 20 lakh tonnes

shortfall in rice production led to a rush into the State of coarse grains from Andhra Pradesh, Karnataka, Punjab and Madhya Pradesh. This heavy import of millets has reached the very needy areas like Ramanathapuram, Tiruchi, Pudukottai, Coimbatore and North Arcot. By December the traders had imported 2.3 lakh quintals of bajra, 1.3 lakh quintals of ragi and 1.35 lakh quintals of jowar. This together with the State's own production of these coarse grains is of real help to the poor.

Second Supplementary Estimates : Further to the Rs. 6 crores first supplementary estimates voted by the Assembly in August 1974 (See Vol. IV, pages 578-579), the Government obtained legislative approval in December 1974 for a second supplementary budget of Rs. 13.43 crores, (Rs. 11.11 crores as revenue and Rs. 2.32 crores as capital allotments). This second supplementary estimate is related to the drought and scarcity conditions referred to above. Rs. 3 crores, as noted there, are for an accelerated programme of improved minor irrigation sources, including Panchayat Union tanks with ayacuts of less than 100 acres and P. W. D. tanks with ayacuts of more than 100 acres. Rs. 60 lakhs is for the remodelling of the Kalingarayan Channel, and Rs. 10 lakhs for sinking open wells and filter points in the city to meet the acute water shortage. To meet the difficult inflation and scarcity situation, Rs. 4.08 crores for the Government paying, on behalf of its employees, the Rs. 10 monthly contribution to family benefits (See Vol. IV, pages 622-623) which is now extended to the teaching and non-teaching staff of aided and local bodies schools, and Rs. 10/- honorarium to village officers and services, Rs. 59 lakhs (which will be Rs. 1.17 crores in a full year) for meeting the increased cost from 6 paise to 10 paise per head of the mid day meal scheme for school children, Rs. 27.65 lakhs for an increase of Rs. 5 per student for Government hostels for scheduled castes and tribes and backward classes, and raising the scholarship eligibility qualifications of the former from Rs. 2,500 income to Rs. 3,000, and of the latter from Rs. 2,000 to Rs. 2,500. Other parts of the estimate include Rs 1 crore in the Rs. 11.94 crore scheme for link roads, Rs. 1.19 crores for road works, Rs. 1 crore to the Harijan Housing and Development Co-operation which has completed building 10,000 houses, Rs. 70 lakhs for the handloom rebate scheme, Rs. 82 37 lakhs to the Tamil Nadu Fisheries Development Corporation for mechanised boats, Rs. 1.79 crores to the Electricity Board and Rs. 3.44 crores to the Poultry Corporation, Farm Corporation, Forest Plantation Corporation, TIDCO and other institutions. The RBI review of States finances in its September 1974 Bulletin has some valuable pointers for this State. Tamil Nadu and Gujarat are the only 2 States which have not recast their last 2 years' accounts on the basis of the new accounting classification and this should be done. On the other hand, this State was the only one to present its budget for 1973-74 within its resources position, the total deficits for the others amounting to Rs. 175 crores. But for this year, all States including Tamil Nadu have had to budget under severe inflationary pressures, which is increasing the deficit under the 2 supplementary budgets and the loss of revenue from prohibition. For all States, including this, there is a slowing of development expenditures (from 16.3 per cent increase in 1973-74 to 9.4 per cent this year). For Tamil Nadu the division between development expenditures is 70.30, with a disproportionate share of 38 per cent in social and 32 per cent in economic services. The problem for this and all other States is the increasing imbalance between income and expenditures caused

by inflation, drought expenditures and the political constraints.

Cauvery Waters: As noted in the last issue (Vol. V page 3) the Chief Ministers of Tamil Nadu, Karnataka and Kerala agreed in principle to the setting up of the Cauvery Valley Authority, and the details of the agreement are now under study by the 3 governments. The basic proposal is that over 15 years Tamil Nadu will save 100 tmc feet and Karnataka 25 tmc feet of the Cauvery waters which will be apportioned ; 2 tmc to meet industrial and domestic water supply needs of each State plus 2 tmc feet to Tamil Nadu, 85 tmc feet to Karnataka and 32 tmc feet to Kerala as against the current use of 488 tmc feet in Tamil Nadu, 177 tmc feet in Karnataka and 5 tmc feet in Kerala. The Cauvery Valley Authority, it is proposed will (a) collect water availability data at various points, regulate supplies among the 3 States to ensure both equitable distribution and meet ayacuts needs, (b) scrutinise and monitor schemes in Tamil Nadu and Karnataka for water use savings (c) assess needs of additional irrigation areas being developed and provide them with water speedily, (d) study and approve projects for use of waters within existing offered limits and (e) examine after 5 years Kerala's project to divert 16 tmc feet of Kabini sub-basin water for the Mananthawaddy project. The Tamil Nadu Government and legislative leaders have accepted the total package as has Karnataka. Kerala has some reservations on the apportionment formula. Now there are bilateral talks between the Union Minister and each State Minister to arrive at final agreement – an agreement vital for all three States to face the critical situation faced by this State, which along with Andhra Pradesh is the rice supplier of the South. From December 10, the Karnataka release of the 5 tmc feet of Kabini waters began flowing through Mettur to the Thanjavur crops. With the continued drought, the government has requested further release of waters and to study this request, Karnataka engineers visited the delta during mid December. This kind of inter State co-operation is a good augury.

Power: The December Power situation was the reduced one reported in the last issue (Vol. V, pages 1–2), with a 40 per cent cut in industrial and commercial services and a 15 per cent cut in essential services. The drought has intensified the agricultural power demand and has reduced its availability for industries. From December 1, power was cut off at 7.30 p.m. to all illuminations and displays and a siren sonnded 2 minutes before this daily cut off. It is hoped that there will be no further reduction during the summer months, and industry losses which in the State have become cumulative, will be the basis for early decision by the Union Government for approval of the 1,000 MW Power station at Neyveli through the second mine cut. In fact the setting up of this kind of large thermal stations should become national policy, if the industrial development in the South is not to suffer a serious set back. The representatives of the Southern Region (The Chairmen of the four Boards) unanimously demanded at their last meeting with the Union Secretary of Power, the expansion of the Idikki project (See Vol. IV page 4) to meet the region's industrial power needs. In addition to the Neyveli 1,000 MW plant, the Andhra Pradesh Board has prepared a 1,000 MW power plant project at the Singhareni pit head. These plants can also quickly be expanded to 2,000 MW at the next stage. From this point of view, the favourable consideration by the Union Planning Commission and power ministry of the 2,000 MW Super Thermal Plant project at Kota in the Singhareni

coal field is encouraging. The four units of 500 MW each of the plant will call for a transmission voltage of 800 kw and if approved this year, the first unit can be commissioned in 1982-83 and will meet the growing power needs of U.P. For the Fifth Plan, the Union Ministry is requesting additional funds to achieve the 16.55 million kw of generating capacity, of which about 12 million kw are continuing projects nearing completion, and 4.74 million kw new projects. The power situation in Punjab, Haryana, and Gujarat continue to be bad. In Haryana power to small units was liberalised in December but the Sonepat complex is still hard hit, several hundred units and thousands of workers remaining idle. In Punjab, the Bhakra supply has continued to fluctuate and the reduction of the power cut from the 75 to 60 per cent has not brought relief because of the rule to observe three days a week off. This has led many industries to close down and skilled workers to migrate out of the State and industries. In Gujarat the increase in power rates by 300 per cent has hit the HT consumers hard, raising their power cost by Rs. 3 crores and for all industries by Rs. 18 crores. There is need for continuing supply of power with a cut in unit consumption. Some further analysis of the cost of production of power supply and the subsidy to the agricultural supply to moderate the effect of the rate rise on industry.

Housing, extension of lease and tenancy rights: As part of the first phase of 10,000 houses built by the Tamil Nadu Harijan Housing and Development Corporation, four harijan housing colonies of 250 houses were opened in December as Thennamanadu, Managorai, Tiruvellanchelli and Melavidayal in Thanjavur district. With the funds provided under the second supplementary budget, the Corporation will complete one lakh houses by the end of 1975. The cost of each house is Rs. 3,500. The Legislative Assembly at its December session passed the land reforms (Fixation of Ceiling on Land) Fifth Amendment Bill to extend the lease on land taken over by the Sugar Cane Farm Corporation for five more years. This will ensure regular supply of cane to the Corporation's sugar factories. Also the legislature adopted the Tamil Nadu Agricultural Land Record of Tenancy Rights (Amendment) Act which defines a cultivating tenant and protects the official recording of the rights of Kanyakumari tenants.

Transport: The Pallavan Transport Corporation received a loan of Rs. 3 crores from the Union Transport Ministry for the purchase of 250 buses, which will improve the public transport facilities in the city. In relation to the delays in the clearance of ships—particularly food grains—referred to in the last issue (Vol. V page 4)—the Food Corporation of India has supplied the Madras Harbour with 4 additional vacuators and 12 new forklifts. As the grain is now arriving in tankers rather than in bulk carriers, the vacuator will be able to suck pneumatically the grain from the ship and pump it back to the wharf and the fork lifts will lift the bagged grain from the transit sheds to the railway wagons and so speed the clearance of the ships. On air traffic, the Madras airport is being extended—the passenger handling areas, an international cargo building to serve the growing cargo traffic, the standby generator and improved electrical and water supply system and fire fenders—all at a total cost of Rs. 2 crores. These extensions will meet the needs of the growing tourist traffic.

Welfare: The December session of legislative Assembly passed the Prevention of Begging (Amendment) Bill empowering Magistrates to order the indefinite detention of leprous beggars in

rehabilitation homes. There are 10 homes for rehabilitating medically, occupationally and socially leprous beggars (See Vol. III page 778 and Vol. IV page 181) and these homes can provide for the few indefinite detentions that will be necessary. Another innovative welfare programme was launched in December by the New Residents Welfare Trust formed by the 77 Society. (See Vol. IV page 480), under which 300 women were trained in sewing and tailoring in co-operation with the Slum Clearance Board. With credit provided by the State Bank, 60 Singer Sewing machines were made available to 60 of the trained women which will enable each woman to earn Rs. 4 a day to supplement her family income.

National

Fifth Plan: The restructuring of the Fifth Plan referred to in the last issue (Vol. V, pages 5-6) was continued in December involving (a) maintaining the basic approach, strategy and framework of the Draft Plan (b) maintaining the priorities and allocations to the core sector, taking into account the revised estimates of resources, foreign aid, and import and export balance, (c) making the structural changes in the plan in response to national and international changes within the 5 per cent growth rate that is maintained, (d) limiting deficit financing to Rs. 1,000 crores, and (e) matching detailed financial planning with physical planning. This last issue of the implementation capacity of of the plan is the most crucial and decisive particularly in light of the implementation lacks of the Fourth Plan, which the RBI 1973-74 currency and finance report reveals. The Plan outlays shortfall was Rs. 1,054 crores at current prices and Rs. 3,394 crores in 1968-69 prices. This 21.3 per cent shortfall was due to the steep increase in investment costs of the last 2 years and a cut back in outlays in these years. Though more resources were mobilised internally and externally compared to the provisions, national income grew at only 3.5 per cent against the 5.7 per cent target (5.3, 4.2, 1.7, 0.4 and 4 per cent during the five years). The Fifth Plan has started very well on the resources front as pointed out in Vol. IV page 669, despite the massive mobilisation of the Fourth Plan. It is essential that the same implementation capacity be built into all parts of the revised Plan—its sectors, external trade balance, administration and prices.

Prices and anti-inflationay measures: The index number of wholesale price for the week ending November 30 was 319.0, compared to 320.0 on November 23 and 319.8 on October 26 reported in the last issue of the Bulletin (See Vol. V, page 6) Two trends in the prices may be noted. As illustrated in the earlier section on the drought and scarcity conditions in this State, the October and November decline of 3.1 per cent in wholesale prices has not been reflected in retail prices, as the retailers were in part disposing of stocks bought at the earlier higher prices and were continuing sales of fresh stocks at the same levels. Second even the wholesale prices began levelling off in November and did not continue their decline noted in October. The decline should have continued upto mid December as the normal seasonal trend basis and only after that date there have been stabilisation. For November wholesale prices of chemicals rose by 0.2 per cent, industrial raw materials by 0.7 per cent, food articles declined by 1.8 per cent, manufactures declined by 0.7 per cent, prices of rise by 12 per cent, vegetables and fruits by 3.2 per cent, while wheat prices rose by 2 per cent, fish and meat prices rose by 6.6 per cent and sugar by 1.7 per cent. The levelling off of whole-

sale prices in November was due to (a) some slackening of MISA operations against smugglers, (b) the general atmosphere of scarcity and doubts about the rabi harvest which will be dealt with later and (c) the credit squeeze affecting producers but leaving speculators a fairly free hand. The much advertised enquiry into large accounts (See Vol. IV page 533) ended in December without results. The RBI's conclusion that there had been no credit diversion to stock piling was based on incomplete data from the banks. These reports did show that there had been a 20 per cent diversion that large loans had been covered by the RBI's credit guide lines and that of 1,600 accounts, only one was turned down and modified. The November RBI supplement shows that bank credit continued to expand in November by Rs. 10 crores, bank borrowing from RBI increased by Rs. 20 crores and their disinvestment was Rs. 54 crores. Their deposits increased by Rs. 68 crores and notes in circulation decreased by Rs. 89 crores. During this month drug prices went up by 33 per cent, calling for some government regulation. The currency and credit picture is thus mixed. There are however two long term issues to which attention needs to be given to contain inflation. One is investment and the other is distribution. The RBI annual report on currency and finance referred to earlier calls attention to the low investment and low production particulary in the public sector that has led to the position of inflation, co-existing with stagnation and even fears of recession in industry. The low level of public investments to which this Bulletin has repeatedly called attention (See Vol. IV pages 572-576) has created shortages of supply in basic industries and in infrastructural facilities and has resulted in the familiar problem of serious under-utilisation of capacity. What is needed to combat inflation on the production side is to increase aggregate investments and change the product mix of certain industries, particularly fertilisers and engineering. Inflation can then be contained and resources raised from the public undertakings, the agricultural sector and even by cutting back on the subsidies in the railways and other undertakings The second factor is distribution to which the Union Government is now turning its attention. The Union ministry of industry and Civil supplies is now planning to divide commodities for distribution into 3 groups. Group A needed by the poverty sector—food grains, sugar, standard cloth, edible oils and cheap fuels where the production will be planned to meet the full demand and the distribution also fully controlled. Group B comprises cement, paper and stationery yarn and diesel oil for agriculture, drugs and washing soap which will be produced to meet priority demands and distribution supervised. Group C will be watched over, and will cover baby food, tyres and tubes, scooters, tractors and foot wear. The reliance on co-operatives for distribution must be accompanied by streamlining and strengthening this agency If to these 2 instruments, more effective action is taken on the credit and money side including legislative sanctions, the expectation that price will rise can be dampened and price stabilisation can be attained without fears of recession. The Union Government in December issued the third tranche of its loan programme for Rs. 175 crores which was fully subscribed on the opening day. This will, however, have no effect on the monetary situation.

State of the Economy and Industrial Growth: Are there recessionary trends in the economy? This vital issue has been debated by the economists at the Annual Indian Economic Conference in Waltair (See Other Items in this issue) and will be at the Second Round Table Conference of Economists to be held in Bombay in February. The

Government is divided on the question—the RBI and the Ministry of Industry holds that there are recessionary trends and the Ministry of Finance states that there is no such thing. The RBI report referred to in the previous section concludes with the statement that the major characteristic of the economy remains inflationary, given the poor kharif performance and the continuing bottlenecks in power and transport. It also states that there is an inter relation between the fears or recession and continuing inflation in an economy today, based on the current structural crisis of inequitable income distribution, continued shortages of essential goods, declining development and a suspended plan, large scale speculation and black money play, which are all essentially domestic factors and in turn involving the cumulative impact of monetary demand built up over many years, the seasonal decline in wholesale prices based on consumer resistance and the decline in public sector investment. The minsistry of Industrial development also calls attention to the fact that while passing through a period of inflation, we are "now on the tip of a recession" because industrial activity has not been integrated into the broad framework of economic activity. The Ministry of Finance however holds that while inflationary forces in the economy are active and though there is some reduction in particular industries there is no general tendency for economic activity to decline and to this effect refers to the decline in general price level due to seasonal trends, increasing goods supplies through dehoarding action and moderating demand pressures through anti-inflationary measures (See Vol. IV pages 532-533), the demand for all industries being active with the exception of automobiles. It refers to the 13 units in wagon industry, the machine making industry and vanaspathi manufactures as evidence of expanding production. The weight of evidence is however in the direction of an economic slow down, consequent on the Rs. 200 crores cut in plan expenditures (See Vol. IV page 531), slowdown in private sector investment involving a reduction of investment from 12.9 per cent to 1971-72 to 10.8 per cent in 1973-74, when domestic savings were 10 per cent of NNP despite the 27.5 per cent increase in money incomes. To this should be added the Union Government's deficit spending which by mid-November reached Rs. 954 crores. The official index of industrial production shows that in June 1974 it rose by 1.3 per cent compared to June 1972 and 3.7 per cent compared to June 1973. Due to good performance in power, steel and sugar, the industrial growth for 1974 is likely to be 5 per cent instead of the forecast 3.1 per cent (See Vol. IV page 672). In fact the Economic Times research bureau's estimate for the financial year 1974-75 is that physical production in chemical and engineering industries is increasing, with declines in diesel engines, machine tools, light electricals, jute and other industries. Profits are expected to increase from 12 per cent last year to 13 per cent this year. Going back, the Comptroller and Auditor General's report for 1972-73 also shows that 93 Union Government undertakings recorded a net profit of 67.73 crores, which has increased the return on capital from 2.3 per cent in the preceding year to 3.2 per cent in this year. These forward moving trends may be strengthened by the changes being introduced in the working of the Industries Development and Regulations Act in the direction of not regulating the growth of Industries but pushing forward their production by speeding up decisions by SIA, by the Industrial advisory group in the Ministry of Industrial Development helping in production expansion, monitoring a new system of licensing to ensure capacity use and investments plans, by supplying the feeder industries with their inputs so that they

can ensure full utilisation of capacity large industries, by a policy whereby credit is available for industrial expansion and above all by depending more on social control than price fixation in a situation where there is no stability in demands, inputs and infrastructure.

National Production Front:

Steel: Four trends marked steel production in November. First production for the month has declined. Bokaro is still lagging at 69,000 tonnes of hot metals production, after the loss of Rs. 10 43 crores in the functioning in 1973-74, due to its production units not being fully utilised. TISCO's iron production declined to 1.51 lakh tonnes and steel ingots to 1.55 lakh tonnes, though saleable steel was maintained at 1.3 lakh tonnes and for IISCO increased by 3,800 tonnes to 35,914 tonnes. Despite SAIL management's claim, the Ministry has expressed doubts about the attainment of the low target for the year of 5.04 million (upto November 3.112 million tonnes was produced against the target of 3.114 million tonnes). Compared to last year's poor performance this year's steel production is higher by 2,89,000 tonnes and despatches by 4,48,000 tonnes. The ministry wants 80 per cent capacity use of the plants and an increase in the year's low target. Second labour troubles are mounting in Bokaro and Durgapur. Bokaro's troubles are partly due to the bonus dispute and partly to inept management. In Durgapur industrial relations continue to be poor and tense and proposals for worker participation in this and other HSL Plants management are bagged down through long drawn out and useless negotiations and trade union rivalry. Third the HSL reorganisation referred to in Vol IV pages 535-536 is proceeding slowly and may not be completed till March. Bhilai, Durgapur and Rourkela are to be set up as separate companies with independent Boards of Management with a view to improving their management and encouraging competition among them. This test remains to be applied and the effectiveness of SAIL as the co-ordinating and directing manager remains to be proved. Finally the pile-up of stocks in the HSL steel plants and TISCO referred to in the last issue Vol V page 9 as at November 30 totalled 3.98 lakh tonnes of finished steel plus 1.49 lakh tonnes in HSL stock yards. 50 per cent of the stock is billets, rerolling substitutes and constructionals for which the demand has fallen sharply. SAIL maintains that this is not a sign of recession in the steel industry but a result of the restriction in use of steel for luxury apartments and civil construction (See Vol. IV page 533). The immediate problem is to review domestic demand and export as much as possible. There is the Rs. 20 crores contract with Iran for export of rails and a target of an additional Rs. 40 crores export by March. Upto November the export perspectives totalled Rs. 5.47 crores. The problem is that the import season has passed and importers want package of various sizes of bars and rounds which our industry cannot supply. Nor is it possible to cut back on the 8.5 lakh tonnes of steel imports for this year, because over half is a spill-over from last year and the rest is for special steels not manufactured in the country. Meanwhile the relative glut is also leading to malpractices. The Eastern region Iran and Steel Controller reports misuse of steel materials by several DGTD Units. One Calcutta Unit under IRCI diverted Rs. 54,000 worth of steel plates from weigh bridge construction to a fake firm and some 18 cases of similiar mismanagement and cheating are reported. With the disappearance of the difference between open market and JPC prices, the production pattern should be changed to meet the clear market trends.

Crude: IOC Crude imports for this year are about 13 million tonnes and next year's plans to import 14 million tonnes will be affected by the December decision of the Ministers of 13 nation OPEC to raise the average cost of crude by 38 U. S. cents per barrel from January 1, 1975 for the next 9 months, making the price $ 10.46 per barrel, with their Government's take being $ 10.12 per barrel. This increase of 3-4 per cent is said to offset the Western countries' quarterly inflation rate of 3.5 per cent. For India this means that at current levels of crude imports, there would be an additional foreign exchange outgo of Rs. 35 crores. It also means that the 3 Oil Companies which have asked for $ 10.67 per barrel for light Iranian (Burmah Shell) and $ 10.46 per barrel for Arabian light (Caltex) (See last issue, Vol. V, pages 9–10) and which the government is pressuring them to reduce will be raising their prices by a further few cents as their trade margins on sales. In this situatton the need for economising on crude consumption and expanding domestic production becomes urgent. The economy on petrolem consumption of 30 per cent is a solid achievement. In the case of the poor man's fuel, kerosene, there can be no economy but a stabilisation at existing levels. In this regard, the reduction of the 30 per cent kerosene cut to 10 per cent and with the possibility of its complete removal is sound. As far as refinery production is concerned, Haldia's fuel and lube production will start at the end of the year, Gujarat's expansion from 4. 3 million tonnes to 7. 3 million tonnes per annum is underway and Barauni processed 2. 64 million tonnes of crude against last year's 2. 39 million tonnes. But there are problems in the product mix. One relates to Naphtha, whose production was 1. 24 lakh tonnes in September against an off-take of 1.16 lakh tonnes, 1.48 lakh tonnes production and off-take in October and a production of 1.6 lakh tonnes and off-take of 1.48 lakh tonnes in November. SPIC's commissioning delay and the MFL's fire accident (See Vol. IV page 498) have added to this imbalance and the export prospects for naphtha which started off in July at a price of $ 127 per tonne having now declined to $ 87, the fertiliser factories must take up this naphtha production to meet more nearly the fertiliser demand of agriculture. Fuel oil production is also in excess. On the assumption that the refineries will produce 3 million tonnes of fuel oil and 1.1 million tonnes of bitumen, 1.8 million tonnes of fuel oil imports were planned. Due to the cut in the road construction programme, the off-take of bitumen has been 0.8 million tonnes and fuel oil production has increased—3.68 lakh tonnes production and 3.33 lakh tonnes demand in September, 4.1 lakh tonnes production and 3.68 lakh tonnes demand in October and 4.02 lakh tonnes production and 3.64 lakh tonnes demand in November. Here the Government must export bitumen as in the case of the 3 lakh tonnes supply to Iran and decrease both internal production and imports of fuel oil despite its being cheaper than crude and in the case of Iraq and Iran its being offered on a $ 2 per tonne deferred payment basis. There is also a growing demand for HSD which is essential for agricultural purposes and to meet this demand the product pattern of the refineries is being tailored to increase HSD and an additionnal Rs. 18 crores allocated to import HSD. The Government has also decided to import for this year the full 1.1 million tonnes of crude from Saudi Arabia against the reduced 6,00,000 tonnes in 1974 (See Vol. IV, page 585). There remains the expansion of internal production. In mid-December the third oil well In Bombay High was spudded and production tests on the first and second wells successfully completed. The minister for Petro-

leum and Chemicals announced in the Lok Sabha that each will produce 1,500-2,500 barrels per day and explained the plans to pursue offshore exploration and drilling in the west and the east coast. His report is supported by the World Bank report which computes that the recoverable reserves in the Bombay High area might be 125 million tonnes. The Soviet geologists had earlier estimated that the country had 3 billion tonnes of oil on land and one billion tonnes offshore. The World Bank also states that there are oil bearing reservoirs in Assam and Gujarat and further deposits remain to be found. It warns, however, that these are very tentative esimates that there should be no relaxation of exploring and drilling and that recent onshore developments are disappointing. All the present wells in Assam were discovered in the fifties and early sixties and most of today's production is from 2 wells and 90 per cent of the output from just 6 wells whose reserves represented only 16 years production. This warning is salutory and calls for unrelenting efforts in exploration and drilling.

Coal : Despite the pressing demand for coal by the thermal plants, railways, steel and cement units, the coal target for the year has been reduced from 95 million tonnes to 90 million tonnes, as the higher target cannot be achieved. CMA's share is 62 million tonnes, Bharath cokings is 19 million tonnes, Singareni 6 million tonnes and 4 million tonnes from TISCO and IISCO mines. With the inclusion of BCCL under the department of Energy, it is hoped that the coking coal needs of Bhilai and the other steel plants will be met. The production and supply of steam coal to the railways, textile mills and chemicals became critically scarce in November. Railways all over India were holding less than 3 days stock. Instead of loading 1,400 wagons of coal per day, in November only 1,150 wagons were loaded in the Bengal and Bihar fields, and this low supply continued in December. Unless the production of steam coal increases rapidly, there will be a serious hold up in transport and the priority industries. This is difficult to reconcile with the report from BCCL that over 2 million tonnes of coal are lying at its pit heads mines. The stock of coking coal is reported to be 1.67 million tonnes and hard coke 2.1 lakh tonnes. Yet Bhilai faced a crisis in the same period with its coking coal down to 36,000 tonnes. On the assumption that all the reports are true, there is once more the familiar problem of integration of the railway, shipping and mining services. (See Vol. IV page 20) on which the industrial life of the Country depends. Meanwhile in U.P. a massive programme is underway to exploit the huge coal reserves of the Singrauli coal fields which spreads over 2,200 sq. miles into MP and on the basis of which a 2,000 MW super thermal plant in being planned as noted earlier. In mid December coal miners' wages were increased by Rs. 100 per month, with an interim wage increase of Rs. 39 a month in pursuance of the recommendations of the coal wage board. There is need for a general understanding in the Country of the vital importance of coal and the need to keep its production and distribution growing as the major form of energy for this country.

Textiles : The excess stocks of textiles with mills reported in the last two issues (Vol. IV page 675 and Vol. V page 11) seems to be ending. The stocks of sold but unlifted cloth declined in the first fortnight of December particularly in the case of those mills which reduced prices. Wholesalers have lifted stocks when they received rebates and were given lower prices, but as suggested in the last issue in the case of several mills, a policy of wait and see has been followed and high prices

have been maintained for non-standard varieties. With a per capita production of 14 metres the textile industry faces a sellers market. It is only standard cloth prices which have been reduced by 30-35 per cent. The so called recession in the cloth market has been due to the high prices which mills have maintained, and where prices have been reduced there have been no accumulation of stocks. Further the extent to which wholesalers and retailers have passed on these reductions to the consumers need examination. With regard to standard cloth, the government has decided to increase its compulsory production from the present level of 800 million metres, to oblige every mill to produce these varieties, to ban the transfer of its obligations to another mill, to ensure some standards in controlled cloth production, with a reasonable proportion of dhoties and lungies. One suggestion is to reduce the varieties of controlled cloth to 51 so that its pricing and distribution may be more effectively controlled. There is an acute shortage of standard cloth and the rural poor do not obtain their necessary supplies. In all industrial licenses, it is required that 65 per cent of the yarn should be in hank farm and 90 per cent in 405 counts for use by hand-looms and for coarse cloth production. In addition to the production increase, there is need for adequate distribution. The December session of the Lok Sabha passed the Bill to nationalise 103 textile mills (See Vol. IV, page 628) under which the government takes over these mills, providing for 49 per cent equity participation by the States, appointing the chairman managing directors in consultation with the States, giving priority to the payment workers' dues and providing Rs. 39 crores for compensation to the owners. The State Textile Corporaton of Maharashtra, M.P., Gujarat, Kerala, Tamil Nadu and U.P. will now become Union Government bodies and it is hoped that there will be sufficient decentralization to ensure efficient management.

Newsprint and Paper : Against the Country's damand of 2.5 lakh tonnes for newsprint, the current production is 55,000 tonnes, including 47,000 tonnes from NEPA. By the end of 1974, according to the RBI currency and Finance Report referred to earlier, NEPA's expansion from 40,000 tonnes to 75,000 tonnes has been completed. In addition the Union Government has approved 3 new newsprint schemes in Maharashtra, U.P. and Himachal Pradesh for a total capcity of 1,65,000 tonnes per annum. This together with the Kerala project with a capacity for 80,000 tonnes per annum will meet the domestic demands for newsprint when all the plants are commissioned and work to capacity. A first private sector newsprint plant–the West Coast Paper Mill in North Kanara has also been licensed for a capacity of 30,000 tonnes per annum, at a cost of Rs. 25 crores including an IFC foreign exchange loan of Rs. 11 crores. The plant will use hardwood and other wood material from the south, will use plant technology being developed at its Research centre, and will be ready by the end of 1976. To meet this year's demands, the Government has imported 30,000 tonnes and has contracts for 1.1 lakh tonnes and is negotiating with the Soviet Union, Czechoslovakia, Japan, Canada and Scandinavian countries for some 90,000 tonnes. With regard to paper, in addition to the existing 10 lakh tonnes capacity, the Union government has cleared projects for an additional 20 lakh tonnes, so that by 1976 Andhra Pradesh Mills, Sirpur Paper Mills, West Coast and Ashoka Mills will create an additional 1.6 lakh tonnes capacity. Even so there is a gap of 2.5 to 3 lakh tonnes, to meet which HPC is planning 4 public sector mills and the Ministry of Industrial Development has granted

129 letters of intent and licences to 3,000-15,000 tonnes mini paper mills to set up a total of 8.2 lakh tonnes capacity. These mini mills are cheap and use rice and wheat straw and, provided they arrange for proper treatment of their effluents, will be an effective means of meeting the large unsatisfied paper demand. To help meet this demand, the Ministry is also setting up through HPC a central marketing organisation which will start with 20 branches in cities and towns with a population of 5 lakhs and above to meet in particular the students and text books demand for paper. In the second stage it will assess the demands for different kinds of paper, arrange production priorities and distribute the paper stocks in an even and fair manner.

Cement : Cement production in November was 44,500 tonnes, recording 81 per cent of capacity use. With some 12 out of 51 plants exceeding 100 per cent, one going upto 150 capacity use and 2 others 120 per cent the Ministry of Industrial Development's monitoring cell is proving its effectiveness in easing the constraints of Industry. In view of the one million tonnes export to Iran this year, this year's production has been raised to 18 million tonnes, as against 14.6 million tonnes in 1973-74 and 15 million tonnes expected for 1974-75. The installed dapacity of 16.43 million tonnes will be increased by 3 million tonnes before next month and the availability of power, coal, and wagons to this sector is being given high priority, in face of the coal bottlenecks referred to earlier. India Cements which in December was working at 26 per cent capacity because of labour problems should improve its performance. Government consultation of current production is 50 per cent, which is further reason for the plants working to an 85 per cent capacity use to meet the growing non-government demand. Licences and letters of intent have been issued for an additional 20 million capacity to improve the supply situation.

Tractors and Railways : Tractor production for April-October 1974 was 16,034 (against 24,425 for all of 1973-74), so that for this year production will attain 30,000. This is near the NCAER estimate of the current demand of 40,000 rising to 75,000 by the end of the Plan. The Ministry of Agriculture's estimate of 90,000 for 1973-74 was way off the mark and led to some miscalculations in import of tractors (See Vol. III, page 245). There are some problems in this sector. Some firms had October order for 43,000 tractors, one firm alone showing 30,000 orders for one make. There is a suspicion of black marketing and speculation in the Punjab and Haryana market which has the highest demand for tractors. The other problem is the price factor. After the decontrol order went into effect, TAFE increased its price by Rs. 6,207 for its 35 HP tractor instead of its requested Rs. 2,580, International Tractors by Rs. 5,750 instead of its requested Rs. 4,233, and Escorts by Rs. 6,321 instead of Rs. 2,234 requested for its 45 HP Tractor. The Bureau of costs must scrutinise these escalations and if unjustified by input costs order a cut back. In regard to railways, recent studies indicate that steam tractors with its high capital costs in line capacity expansion and lower hauling ability is not economical, so that extending the life of the existing steam fleet instead of further production is economical. With the oil shortage, dieselisation is not the alternative but further electrification using the country's abundant coal reserves. The stepping up of the pace of electrification to 1,800 additional kilometres in the plan period together with improvement of the track and rolling stock will ensure effective and economic haulage of traffic. In time the

3 per cent railways consumption of the national consumption of electricity and its 10 per cent of total diesel consumption can be expanded to use both forms of energy to replace steam traction.

Fertilisers : The fall in the demand for fertilisers to the extent of 30 per cent referred to in the last issue (Vol. V, page 12) is related to the drought affected States of Orissa, Gujarat and parts of MP and Andhra Pradesh. In Tamil Nadu and Punjab, however, there is a large volume of unmet demand. The first task is to ensure the production upto capacity of fertiliser plants which ended the Fourth Plan with a 40-50 per cent use. The bottlenecks are various including power cuts, voltage fluctuations and breakdown in the case of Nangal, Rourkela, Gorakhpur and Kanpur and lack of phosphoric acid for Madras and Goa. This can be corrected and supplies ensured. A second factor is bad management and faulty technology to be found in Madras, Kota, Baroda and Vishakapatnam. Here management must be changed and the technology replanned and adapted as is being done in SPIC. The shortage also calls for substitute fertilisers. The Union Government has allocated Rs. 9 crores for the organic manure development and utilisation programme and is experimenting with anhydrous ammonia as a source of nitrogen for wheat in Punjab, sugar cane in Gorakhpur and paddy in West Bengal. It is also working on high analysis complex fertilisers, slow release of N-fertilisers, NPK optimum doses and combined application of fertilisers and pesticides to improve crop yields.

Agricultural production : For 1974-75 the tentative estimate of food grains production is 107 million tonnes against the 118 million tonnes target, of which rice production is put at 41 million tonnes, a 4 million tonnes shortfall because of droughts and floods. The kharif procurement target was placed at 6.6 million tonnes (5 million tonnes of rice and 1.6 million tonnes coarse grain) on the recommendation of the Agricultural Prices Commission, with Punjab leading at 11.5 lakh tonnes, Andhra 8 lakh tonnes, U. P. 6.3 lakh tonnes, M. P. 6 lakh tonnes, and Tamil Nadu 4.7 lakh tonnes. In early December, the Government reduced the target to 4.6 million tonnes against last year's kharif rice and coarse grains procurement of 4.2 million tonnes. As stated in the last issue with the kharif arrivals almost complete as at the end of December, it looks as if the total procurement will be 3 million tonnes of rice and one million tonnes of coarse grains. By December 21, 1.06 million tonnes of rice and 53,000 tonnes of coarse grains had been produced. Rabi prospects are good in some States and affected by drought and floods in others. As on December, the Union Government has made available Rs. 56.29 crores in short term loans to 95 drought affected districts in 7 states and 52 flood affected districts in 4 States. In Assam floods destroyed early paddy and damaged jute and late paddy, in Bihar 3 taluks lost all their crops, in Gujarat the whole State is on relief, in Haryana 4 districts are drought stricken, in Orissa 1,700 panchayats are famine ridden, in Rajasthan Punjab and West Bengal about 5 crores of people are affected and crops lost. To this tale of woe should now be added Tamil Nadu with 5 of its districts severely affected. In this situation, it is criminal that 100 irrigation projects are held up in inter State disputes, 50 of these projects are in the Godavari basin and 25 in the Cauvery. The Cauvery projects which are held up are 9 in Karnataka, 8 in Kerala and 8 in Tamil Nadu. With the establishment of the Cauvery Valley Authority, these projects should be processed quickly and

executed. Again Andhra Pradesh whose Rabi production prospects are encouraging, with 8 lakh acres in the Krishna and Godavari river system, 1. 5 lakh acres in Guntur and Nalgonda districts and 2 lakh acres elsewhere would do even better if the Godavari projects are cleared, in addition to helping dry Maharashtra which has 40 projects based on Godavari. The Government's food imports were referred to in the last issue (See Vol. V page 13). In addition to 5 million tonnes referred to there, agreement with the U. S. was about to be concluded in December to purchase 3 lakh tonnes of food grains to be repaid in convertible currency in 40 years. The distribution system continues to be a question mark. The government points to the market arrivals of wheat in the North in December which was in such a state of deterioration that they must have been hoarded for 3 or 4 years and were finally unloaded because they were rotting. Perhaps the government was going too far to claim on this evidence that the Country is self sufficient in food output, but distribution and procurement are as decisive as production. In the present situation, there is need for special attenton to be given to the Country's dry farms which need a much smaller amount or package of inputs, but which must be related to soil needs along with minimum infrastructure which they lack. The Cotton Advisory Board estimates cotton production at 65 lakh bales, up from the September forecast of 62. 5 lakh bales but lower than the 68 lakh bales estimated during the rainy season. The problem of fluctuating cotton prices is worrisome (5-7 per cent above 1973 levels) and machinery should be established to stabilise prices for the farmers and industry.

Exports : The rising trend of exports for the first six months of this year, 1974-1975, at 41 per cent referred to in the last issue is not likely to be sustained in the second six months as seen in the drop of percentage rise to 37 for the first seven months, because our export markets are contracting. The combined growth of major industrial countries declined at 1.5 per cent during the first half of the year, compared to the 8 per cent rise during the same period in 1973-74. The U.S. still offers an expanding market, which the recently passed Foreign Trade Bill may further enhance. But India has a small share of that market and her problems of raw materials shortage, power cut, transport, credit and shipping bottlenecks do not make Indian exports attractive to the U S. Whether the Government's compulsory export scheme is helping or not remains to be seen. Exports in October 1974 were 8 per cent higher than in October 1973 and it is true that the quantum increased during the first six months, in tea by 22 per cent, manganese ore by 31 per cent, finished leather by 133 percent, and basic chemicals by 58 per cent. But our cashew exports which rose by Rs. 62 crores from January-November was reduced in quantity by 2,000 tonnes compared to the first 11 months in 1973, due to the 50 per cent price rise, fruit exports which fetched Rs. 6.5 crores also trace back to the rise in price of mangoes, dried fruits and nuts, silk exports on the other hand declined from Rs. 1.15 crores in September to Rs. 83 lakhs in October due to the 30 per cent price fall abroad, so that its target of Rs. 13 crores may not be achieved. Cotton textiles began picking up, moving from Rs. 26.37 crores in October to Rs. 29.52 crores in November, the cumulative exports for January-November being Rs. 317.95 crores compared to Rs. 196.55 crores in January-November 1973, which is contrary to the industry's complaints and demand for setting off exports against controlled cloth production, rebates etc., sugar export earnings are now placed at

Rs 285 crores for the year, lower than last month's forecast of Rs. 400 crores. At the end of November 3.42 lakh tonnes had been exported against the target of 5 lakh tonnes. Meanwhile the import costs are rising as pointed out in the last issue (see Vol. V pages 13-14). For 1972-73 import prices of cereals rose by 50 percent, raw wool by 27 per cent, 13 per cent for fertilisers and raw cotton and 23 per cent in pipes and tubes, registering further rises for this year. In April-October of this year, imports rose by 58 per cent and the trade deficit was Rs. 337 crores (and not Rs. 248 crores as reported in the last issue (Vol. V, page 13). In this situation the series of bilateral trade pacts will be of some help. The first meeting of the joint Indo-ECM Commission (See Vol. IV page 131) in December decided to continue the duty free entry of jute and coir into U.K. and Denmark in 1975, expanded the quantam of handloom exports and liberalised the GSP regime for engineering goods and tobacco. It also provided for improved information on India's export potential to ECM consumers and ECM markets to India's exporters. The Indo-Rumanian Trade protocol for 1975 signed in December provided for a trade turnover of Rs. 113 crores, Indian Exports covering iron ore, coffee, jute, black pepper, oil cakes, leather goods, textiles machine tools, diesel engines and imports to include fertilisers, oil prospecting and drilling equipment, rolled steel and steel products and chemicals. So too the Indo-GDR agreement signed in December provides for a doubling of the present Rs. 65 crores, the 2 way trade, by 1980, including purchase of ships. The Indo-Soviet trade pact envisages a 150 per cent increase from the present Rs. 430 crores to Rs. 700-900 crores. The Indo-Sudan trade negotiations initiated in December similarly foresees a considerable widening of the trade between the 2 countries. A comprehensive Indo-Czechoslovak trade agreement was signed in December to increase trade from Rs. 100 crores to Rs. 160 crores in 1975, involving export from India of nontraditionals and manufactures.

Aid: In December India signed an agreement with the World Bank for an IDA loan of $ 35 million to increase and stabilise agricultural production in drought prone districts in Andhra Pradesh, Karnataka, Maharashtra and Rajasthan and $ 14.1 million for dairy development. With Canada a similiar soft loan agreement was signed for $ 10 million for import of potash fertiliser. ECM also offered $ 50 million as part of its $ 120 million aid to countries most seriously affected by the rise in oil prices. India also signed an agreement with U.K. for an interest free debt relief loan of Rs. 17.75 crores in free foreign exchange repayable over 25 years, the first 7 years being the grace period.

International :

Bangla Desh : In December India and Bangla Desh signed a trade agreement to replace the Balanced Trade and Payments Agreement (See Vol. III page 570) by a convertible currency agreement, under which trade between the two countries will be carried on, on the basis of freely convertible currencies. The rupee and taka trade agreement did not work as pointed out in earlier issues of the Bulletin, because India could not import Bangla Desh jute in light of the slack in its jute industry, Bangla Desh could not supply the Indian need for newsprint which earned its foregn exchange, India's coal, textiles and machine goods were quickly absorbed by Bangla Desh and to make the imbalance in the trade worse, extensive border smuggling made a mockery of the agreement. This border infringement

must be contained, Bangla Desh's adverse balance is to be converted into a long team loan and coal and jute are to be the major trade exchanges with improved communications.

Pakistan: In pursuance of the Indo-Pakistan trade agreement signed in November (see last issue Vol. V, page 15), an Indian team visited Pakistan in December for cotton purchases and reached agreement to this effect with Pakistan's Cotton Export Corporation. A high level Indian Team is visiting Pakistan in January to agree upon the detailed list of its items including rice which India will import from Pakistan, and export items like steel and machine goods to Pakistan.

World Monetary Reform: In December there were 3 developments affecting the eformed would monetary system. The price of gold shot up to $ 196 an ounce in December end, well above the November 8 high water mark. Second the U. S. offered 2 million ounces of gold from its official stock for auction on January 6 which coincides with the law enabling American citizens to buy and sell gold freely. It was hoped that the sale will reduce gold imports and decrease the citizens' demand for gold which is pushing up prices. Each 400 ounce bar is valued at $ 16,890 at the official price of $ 42.22 per ounce or $ 74,000 at the free market. Third as a result of the agreement between the U. S. and French Presidents at their December meeting that governments can revalue their reserves at free market prices, Central Banks will be able to buy gold on the free market (up to now they have been permitted only to sell gold on the free market, See Vol. IV page 360) and will permit IMF to sell part of its gold holdings. It is not clear whether this means any restoration of gold's position as international currency or whether SDRs will be the sole international unit of account. IMF is amending its articles relating to the price of gold and its role in the monetary system, and till they are published debated and adopted, it is difficult to say any more than that these developments may have a profound effect on the world monetary system. They will affect the oil producing nations who are buying gold and will help the difficult balance of payments position of countries like France and Italy who hold reserves.

World Aid: As noted earlier, ECM announces $ 120 million aid to the third world countrles most seriousiy affected by high oil prices. Saudi Arabia granted a loan of $ 750 million to the World Bank repayable in 100 years. Similar loans have been made by Kuwait, Iran and Venezuela. On the other hand the U. S. has informed the U. N. that it will not contribute its share of $ 500 million to the U. N. Emergency Fund (See Vol IV page 491) and will not serve on the 36 member board of governors to administer the fund set up by the April 1974 session of the General Assembly, because it feels that its aid should be channelled through existing institutions and bilateral agreements. This action is probably the U. S. reaction to the U. N.—Unesco decisions in South Africa and West Asia. At the same time, the U. S is also holding up the ECM plan for a new petro-dollar recycling facility within IMF which is intended to help oil importing countries finance their oil imports. This also is part of the U. S. opposition to parts of the reformed monetary system—the risk free investment the IMF would be offering OPEC countries to boost the U. S. Secretary of State's plan for a $ 25 billion recycling facility, and its opposition to the five year quota review and amendments to the IMF articles which will give the OPEC Countries their due in power and voting. The monetary system and aid is now enmeshed in

serious political issues which should be faced and fought at that level.

UN Economic Charter : In December after nearly 3 years of work, the U. N. adopted a 34 clause charter of economic rights and duties of the States. The rights set forth cover, inter alia, (a) the right of every State to choose its economic, political, social and cultural system in accordance with the will of its people without outside interference and coercion, (b) the right to exercise freely full permanent sovereignty including possession, use and disposal over all its wealth, natural resources and economic activities, (c) the rights to regulate and exercise authority over foreign investments within its national jurisdiction and to nationalise them providing appropriate compensation in accordance with its laws, (d) the right to regulate and supervise the activities of trans national corporation with its national jurisdiction and which should not interfere with internal affairs of the State, (e) the right of developing countries in international trade to equitable benefits and exchange on the basis of most favoured nation treatment, (f) the right of states to form organisations of primary commodity producers to develop their economies, (g) the right to benefit from advances in science and technology, (h) the right to exploitation of sea bed resources for peaceful purposes and the benefits to be shared by all States, (i) the right of land locked countries to free access to and from the sea, and (j) the right of developing countries to link the prices of their exports to prices of their imports. Unfortunately this charter will remain as a declaration, because the developed countries voted against it or abstained, particularly on the clauses relating to nationalisation and compensation.

World Food : Neither the estimates of world food output nor the follow up action of the UN Food Conference (See last issue Vol V page 16) is encouraging. The International Wheat Council estimates that wheat production in 1974 was 325 million tonnes (excluding China), down from the previous year's 342 million tonnes, due to the adverse weather conditions in North America, Soviet Union and India. The U. S. department of agriculture estimates a decline in 1974 rice production by 2 million tonnes to 308 million tonnes. Rice production in U. S., USSR, Latin America and Africa is up by 10 per cent but down by 4 million tonnes in Asia, particularly India, and Bangla Desh. Hence the import demand is estimated at 7.4 million tonnes which is about 1 million tonnes more than last year. FAO in its turn has warned of food deficits and poor harvests in Pakistan, Bangla Desh, Burma, Honduras Somalia and Ethiopia. Attention is called to the imbalance in food consumption in our world. It is pointed out that if every one ate as much as a person does in the U. S., present food production can feed only one out of four persons in our world today. Despite this grim picture, not much progress has been made in setting up the buffer stock of 10 million tonnes as food security aid (See Vol IV page 681 and Vol V page 16) and the meeting called by FAO at the end of November for this purpose has not as yet produced concrete results. The machinery part of the Rome Conference decisions is, however, moving forward with the setting up of 36 member food council by the General Assembly of the United Nations. The only positive note is the pledge of $ 45 million for 1975 for international agricultural research to the consultative group on international agricultural research.

Colombo Plan : The ministerial meeting of the Colombo Plan meeting in Singapore in December decided to extend the life of the organisation for five years, and to invite EEC, Denmark, Iraq, Kuwait,

Norway, Quatar, Saudi Arabia, Sweden and the United Arab Emirates to attend the next meetings as observers. Its decisions include noting the fears of a major recession, calling for massive and urgent concessionary assistance, (actually the $ 4.5 aid per person in 1973 was 30 per cent less than aid in 1963), international support to increased investment in food production particularly in India, Bangla Desh and Pakistan, solving the problem of unemployment, under employment and urbanisation and pushing ahead with nonreciprocal trade preferences for the countries. The Colombo Plan is in danger of becoming a mini-United Nations. It should continue as a small cohesive group to promote bilateral relations of aid and trade which it has done well to date.

World Dairy Development : The 19th International Dairy Congress which met in Delhi established a world plan to increase milk production. It noted with regret that the UN Food Conference in Rome in December did not pay adequate attention to dairy development and draw attention to the pattern of dairy development in India as a model for other agro industrial development. It called attention to milk as a complete food, whose supplies should be judiciously used for promoting dairy development and improving international and socio economic conditions. It could be a major instrument in banishing protein hunger in developing countries.

Asian Clearing Union & Asian Coconut Community: In December the Asian Clearing Union (ACU) was formed with the initial membership of India, Iran, Sri Lanka, Nepal, Pakistan and Bangla Desh to use participants' currencies in current transactions between them and so save foreign exchange resources, to promote monetary and banking co-operation between them and so contribute to trade expansion among the Economic and Social Commission for Asia and the Pacific (ESCAP) members. ACU will use the Asian Monetary unit (AMU) in which all accounts of ACU will be kept, one AMU being equal to one SDR. Thus a new intermational currency unit – the AMU – has come into existence. The first meeting of the ACU Board of Governors set up a technical committee to establish the detailed clearing procedure, the instruments to be cleared, currencies to be used and their rates of exchanges. For the present payments on crude and its products will not pass through ACU and similiar ineligibilities of particular commodity payments may be notified by any member. If a participant's net creditor position at the end of an accounting period exceeds the limit of 1/12 of its exports to the other participants, it will be entitled to an immediate settlement of the excess. Similiarly it must settle if it is in a net debtor position. This development could promote inter Asian trade effectively. The eleventh session of the 7 member Asian Coconut Community met in Manila in December and took a series of decisions on aspects of coconut development, with particular reference to the problems of farm size, indebtedness and marketing and export of product of the coconut farmer.

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II Agricultural Development

Paddy :

The Kuruvai rice procurement for the State was 2.6 lakh tonnes as reported in the last issue (Vol. V page 17), and with the failure of the North West Monsoon the prospects for the Samba, Thaladi and Navarai crops are bleak, as noted in the earlier section on the drought and scarcity conditions. In fact the State is planning on the basis of a large decline in paddy production for the year, from 57 lakh tonnes to 37 lakh tonnes. Farmers in Thanjavur and other districts see their standing crops endangered and the Samba harvest is certain to be a poor one. In this situation the Government is taking action both to conserve a part of the paddy cultivation and ensure the maximum available procurement for distribution. It is negotiating for a further release of the Kabini waters from Karnataka to aid the Thanjavur farmers and meet part of their irrigation needs. It is intensifying the well digging programme and installation and energisation of pumpsets through the Tamil Nadu Electricity Board, the provision of diesel pumpsets and credit through the Land Development Banks and Co-operatives, to help the production programme in other districts. It is offering a package of incentives to Thanjavur farmers, including fertilisers at subsidised rates, to induce them to raise a third crop. Fertilisers face a buyers market in the State, the failure of the monsoons, the high price of fertilisers the distinction between food and commercial crops for priority fertiliser supply and the cumbersome system of distribution on the basis of cards—having all reduced the overall demand in the State by 30 per cent. (This does not mean that there are not pockets of Thanjavur where farmers are not getting their needed upply). On the other hand the fertiliser factories—Madras Fertilisers, FACT, and now SPIC are producing normally and are finding difficulty in selling their product. For Tamil Nadu atleast there is no need for imported phosphates as the 17 : 17 : 17 complex manufacture in the State and the Country is more than adequate to meet the farmer's needs. One help that the co-operatives can give the farmer is to provide him with credit to purchase his needed fertiliser. On the distribution side, the government is taking a series of measures to assure itself of an adequate stock of food grains. It has included the Thanjavur district in the levy system, replacing the system of direct purchases from the farmers, so that the levy will be operated on the IR-20 paddy grown on 50,000 acres and on the main samba harvest. It has fixed uniform rates of levy ranging from 0.5 quintals to 10 quintals of paddy for irrigated land and 0.5 quintals to 5-5 quintals for rain fed tank and well irrigated lands, reducing the exemption limit for river irrigated farms as noted earlier. It has amended the Paddy and Rice (declaration and requisitioning of stocks) Order requiring persons holding 20 quintals or more of paddy or 13 quintals or more of rice to declare their stocks. It has issued the Tamil Nadu Paddy and Rice (Regulation of Trade) Order to direct that all paddy and rice purchases should be made, by co-operatives on behalf of the government in surplus areas, and imposed a levy of upto 50 per cent on traders' stocks. It has also assumed powers under the Essential Commodities Act to impose a procurement levy on farmers and traders in cholam, cumbu, varagu and ragi. Holdings upto one acre are exempted and those having above one acre will give between 50-300 Kg per acre per crop at the rate of Rs. 74 per quintal Traders having stocks beyond the limit

will have to give upto 50 per cent of their stock at the same rate of Rs. 74 per quintal. Despite all these production and distribution measures, the State will have to rely on the Union government pool to meet its food grains need for the year.

Potatoes:

The drought as well as frost has severely damaged the State's potato crop. In 4 villages in the Nilgiris district, 75 per cent of the crop has been hit by frost and in parts of Ootacamand taluk the damage is so extensive that the farmers are not getting back an amount equal to the seeds that they planted. A total of 10,000 acres has suffered serious decline in potato production, so that a further deficit in the State's food diet has to be faced this year. The government is taking relief measures—conversion of short term loans into medium term, waiver of penal interest on co-operative loans, subsidised supply of seed potatoes, and fertilisers and remission of takkavi loans—to meet the immediate problems of the farmers.

Research Results:

The State's relatively well endowed soil laboratories are now being called upon not only to increase their testing of the different soils in each district, but also relate their chemical findings to tests on the different soil's fertiliser response. These include crop needs and root feeding power, the soil's nutrient absorbing capacity, soil preparation and sub-soil levels. Soil analysed now need to provide information on nutrient needs of various crops in various soil, so that plant analysis rather than straight soil analysis is the direction in which the research is moving. The *Tamil Nadu Agricultural University* has found that Azotobacter and other bacteria help in fixing the nitrogen in marshy soils. The treatment of the seeds with this bacteria at various stages halves the basal fertilizer dose required. In fact with the nitrogen scarcity that we are facing, using Azotobacter on the rice crops can save about 90 per cent of the fertiliser cost. This means that the fertiliser dosage recommended should be related not only to the soil condition but also to the use of the bacterial culture now available. Another means of saving on fertiliser is adequate weed control as weeds are large consumers of fertilisers (of around Rs. 500 per hectare) and through combined application of manure and fertilisers. The problem now is to convey these important research results to the farmer in simple and operational terms. Another *interesting development is* the Rs. 600 drying bin developed by the *Bangalore Agricultural University* which is simple, easily built and usable by the small farmer to dry his crop particularly during the Kuruvai harvest in the State which very often overlaps, with the onset of the rains. Another set of studies by the Tamil Nadu Agricultural University highlights the problems faced by the Small farmer and proposes some solutions for action. A survey of 160 small holdings in 16 villages in the development blocks of Ambasamudram, Kilparoor, Tiruchengode and Villathikulam showed that only 38 farms were viable in terms of their crop income and a total of 84 farms were viable when non-farm income was added. The net farm income of single crop dry land farms was Rs. 189.79 per annum per acre, while irrigated multiple crop land earned Rs. 1,441.15. Thirty-four per cent of the viable farm incomes depends on non-farm activities. The major problems faced by the small farmer include (a) increasing fragmentation of holdings, (b) inadequate and untimely disbursement of credit by banking co-operatives, leading to the hold of the private money lender with his interest rates of 24 to 36 per cent, (c) distress sales, low prices, lack of storage and processing facilities, high marketing costs and (d) high

cost of fertilisers. It was found that as the farm size increased, the percentage of adoption of improved practices increased and as the level of education increased, the percentage of those able to use government facilities and concessions effectively increased. The need for consolidation of holdings, increasing farmers' education, improving the working of banks, co-operatives and regulated markets, the adoption of new management techniques and appointment of agents to pool the produce and linking production and marketing through loan advances are lessons highlighted by the study.

Sericulture :

As noted in last issue Vol V, page 20 the Rs. 4 crores crash programme for the development of sericultures in the State now awaits Union government clearance. It would double the 13,000 acres under cultivation bringing an additional 13,000 acres under mulberry cultivation in Dharmapuri, Salem and Coimbatore districts to which better quality seeds will also be provided. The Central Silk Board and the Tamil Nadu Agricultural University are starting a pilot sericulture centre to assist the project.

Coffee :

At the end of October, the Coffee Board pool totalled 85,513 tonnes, of which 42,599 tonnes were sold in export and 21,788 tonnes in pool auction. The export performance for 1974-75 will hit the target of 53,000 tonnes, realising Rs. 48 crores against the 1973-74 export of 52,688 tonnes fetching Rs. 46.01 crores. The next crop will be 90,000 tonnes as forecast in the last issue Vol V page 20 which is an increase of 4,500 tonnes over the current season's crop. The unit value of coffee exported in 1973-74 was Rs. 8,773 per tonne against the previous year of Rs. 6,478. For this year because the major parts of the exports were effected before the world prices began to decline, the unit price will be about the same. To counter the falling international prices, five Central American countries and Panama have decided to hold back part of their coffee crops from the market with the financial aid from Venezuela. This action followed the OPEC decision to raise oil prices by 38 cents a barrel and is aimed at obtaining what the meeting called a just price for their coffee exports. This will also help India's rather small coffee export—small in relation to that of the Latin American Countries.

Tea :

In December tea prices further improved (See last issue Vol V, page 21), the average price rising from Rs. 10.38 to Rs. 10.63 per kg. The average sales in tea ranged from 4.8 lakh kgs to 7.4 lakh kgs. The quality of the tea offered was good, the best being Nilgiris offerings. The USSR and Australia were major buyers followed by UK and Iraq. The problem of sick tea gardens (See Vol III page 575) is still under study by the Union Government which is working on legislation for their take over. This is a problem mainly of concern to West Bengal and Assam and not much to this State. Tea production in the State and South has suffered from failure of the North East monsoon and frost in the Nilgiris. South India's crop from January-October 1974 was 81.6 million kgs, 4.5 million kgs less than the first 10 months of 1973, though exports increased by 6.1 million kgs to 38.9 million kgs during the first 10 months of 1974. The move to form an international tea producer's body (See Vol IV page 496) was strengthened at the International symposium on the markets held in December in London. It recommended the establishment of an International Tea Pro-

motion Council to co-ordinate tea promotion and push tea sales around the world. It will identify target markets for promoting tea, formulate strategies for promoting within these markets and choose suitable areas for product development and research. Promotion will have to be selective as there are wide ranging differences in tea consumption between countries. These recommendations will be considered by the Inter governmental group on tea at its next meeting in FAO, Rome.

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III Industrial Development

Salem Steel :

In view of the fact that every tonne of Steel needs 0.3 tonnes of limestone, the lime stone available at Aryalur is being tested at the Bhadravati Iran and Steel works for use as raw material at Salem. This replaces the plan to use the limestone from Bihar with its heavy transport cost. In any case the Aryalur limestone has the requisite chemical purity. Todate the limestone is being used by our cement sector at the rate of 4 million tonnes per annum and Salem can use part of the 200 million tonnes limestone deposits in the State. On the Vishakapatnam and Vijaynagaram Steel plants, the Union Government has once more provided the assurance that the project reports are being commissioned and that the projects are not being shelved (See Vol IV page 639)

Neyveli :

One of the two oil fired 50 MW units shut down in September because of the fire accident and boiler damage (See last issue Vol. V, page 21) was recommissioned at the end of December. The lignite production is also slightly affected because of the breakdown of one of the bucket wheel excavators. The programme to expand lignite production from the current 3.5 million tonnes to 6.5 million tonnes has became even more urgent and it is hoped that the December visit of the German firms that will supply the machinery will speed this long delayed decision. It is incredible that a final decision has not been made on this expansion and the Project Investment Board has still to approve the project. Meanwhile everyday the cost of the project and the foreign exchange component is escalating. The original cost of the expansion was till 1973 Rs. 36 crores (See Vol. III page 141). In July 1974, it became Rs. 63 crores (See Vol. III page 348 and Vol. IV pages 550 and 639) and in December Rs. 87 crores. The foreign exchange costs have also escalated from 20 crores to Rs. 40 crores. This is the kind of useless delay which runs through our execution record and one result is unnecessary cost escalation and in this case, more serious, power cuts and the damage to the State's industry and agriculture. Once more the Department of Mines is trying to clear the project with Union Finance Ministry and the Planning Commission. The case is overwhelming. The unit cost of Neyveli power will be 12 paise per unit which is

lower than thermal power. But the opportunity cost is really much higher because neither coal nor water is available. All the reports made in the earlier issues based on Neyveli reports that the expansion project has been approved and the machinery is on order are thus false. The project is still in the bureaucratic mill. In this situation, the Union Ministry of Energy has approved the switch over of the fuel base of the Neyveli urea fertiliser plant from lignite to fuel oil. The plant has consumed 3.6 lakh tonnes of lignite per year and has produced less than 60,000 tonnes against a capacity of 1.52 lakh tonnes. Its technology is defective and so even if fed with all the lignite needed it will not produce more than 1 lakh tonnes of urea. Hence the case for switch-over to fuel oil which is unwise because of the oil crisis. But to direct even this little lignite to power generation which can hopefully be increased to 250 MW and increase urea production, the plant is being modified. For the present, as noted under the section on Crude, there is a glut of fuel oil in the country. But this will not be the case, 2 years from now when the change over is made. The cost of the change over was estimated at Rs. 8.8 crores in 1973. Now it must be higher. It is being handled on a turnkey basis by the Fertiliser Corporation of India. It is a pity that the State is not able to use fully the only fuel it has in abundance—lignite. This is a task for our scientists and technologists.

Kalpakkam:

The Kalpakkam atomic power plant is now keeping to its revised schedule. Some of its components may be purchased from Czechoslovakia as a result of the recent agreement signed between the two countries as noted in the Exports section. The first unit of the plant will become critical in 1977 and the second in 1979 so that the plant can be commissioned and produce power for the State at the start of the Sixth Plan. Its requirements of heavy water of around 250 tonnes for each unit will be met from indigenous production which will be adequate after 1976-77.

BHEL :

One of the problems that BHEL has been facing is the mounting dues from non-payment of the bills by the consuming agencies. There is some improvement in this dues situation through action of the Union government in one case. The Union government paid Rs. 25 crores towards the Rs. 75 crores dues of the U.P. Electricity Board and cut this amount from its Plan allocation to the State government. It proposes to make similar payments of Rs. 10 crores per month. But the other dues amounting to Rs. 127 crores—Rs. 87 crores from other State Electricity Boards, Rs. 12 crores from Railways and the rest from DVC, FCI & HSL—have still to be settled. The Electricity Boards claim that they have not received their Fifth Plan allocation out of which these dues are to be paid. The Union Ministry of Finance should arrange for these payments without further delay. In the meanwhile equipment is accumulating at the BHEL plants. Kalpakkam's 235 MW set is lying at Hardwar awaiting a special type of wagon to be supplied by the railways and in the other cases the equipment has not been taken over because of the delay in the projects for which they were fabricated. Another problem that BHEL faces is that though it will close this year with a record production of Rs. 330 crores for this year, it has no orders on its books beyond 1975-76. Given the 3-4 years lead time it requires to plan its production schedule, the agencies must now place their equipment orders if BHEL is not to join the

ranks of under utilised public sector undertakings. There is need for more comprehensive inter project planning.

SIPCOT :

SIPCOT will be completing next month an industrial potential survey for 300 industrial projects. It is setting up its own consultancy division to undertake detailed feasibility studies of the projects on the basis of the survey and will also employ other consultants for this purpose. The feasibility study that is to be undertaken with the help of the financial institutions will list the investment needed for each project, its location, its needed equipment, the transportation, water and power facilities available and needed and the time required for obtaining the various licences and clearances. In this connection the reforms made by the Union Ministry of Industrial Development to speed up the issues of licences and simplify registration procedures will help SIPCOT in its programme to help entrepreneurs establish units in its complexes in backward areas. It is hoped that the time element in receipt of capital good licence, foreign exchange release and approval of foreign collaboration will also be shortened in the interest of opening up the backward areas and aiding the small enterprises.

Madras Refineries :

The report of Madras Refineries for the year ending June 30, 1974 records a net profit of Rs. 6.7 crores, with total sales of Rs. 136.37 crores, up from Rs. 65.30 crores in the previous year. Its expansion programme to take its refining capacity to 3.5 million tonnes of crude per year becomes operational this year. Also optimisation studies are underway for product thus needed by the Country's changing needs for petroleum and petroleum products. Work is also producing on tests on the latest processes for dewaxing and deoiling, which on completion will decide whether the processes should be adopted and if so how they can be adopted to the firm's needs.

Sugar :

The Sugar mills in this State and Andhra Pradesh have joined together and established a fund of Rs. 30,000 to promote studies and research in sugar agriculture and sugar technology. One immediate issue that has been brought to the attention of the mills is the growing losses they suffer in the processing of cane and sugar. Even a 0.2 percent reduction in these losses will mean an addition of 22,000 tonnes in the production of sugar. Further the mills are also getting their cane officers to study available sugar cane research data and follow them up through field tests and investigation, so that crop norms can be established for the State for higher yield and quality cane. There is also the need to fix the proper fertiliser dosage, its timing and studies on the micro nutrients of the soil in cane tracts in order to establish suitable schedules and so enable the farmer to grow better cane at lower prices. The Union government has cleared new sugar units for 1.3 million tonnes, part of which will be located in Thanjavur. Of the 173 co-operative mills in the country licenced, 90 are in operation and 80 coming up. These 80 require a capital of Rs. 480 crores, Rs.48.7 crores to be provided by canegrowers, Rs. 122 crores by the States and Rs. 316.3 crores by the Union government. In view of resource constraints, the government has asked IDBI and ICI io join with it in financing 12 factories with Rs. 23 crores as a start. Simultaneously the existing mills in the State should apply for permission to expend their capacity. The question of a higher cane price raised by cane growers in this State and Andhra Pradesh has been

turned down by the Union Government because that would raise the levy price of sugar. Instead the government has asked the mills in the 2 States to ensure reasonable and remunerative price for the growers and has asked the State Governments to negotiate with the mills for such a price.

Cement :

In December the seven cement plants in the State had for a change adequate coal stocks and were therefore producing at 90 percent of their 2.68 lakh capacity, (with the exception India Cements referred to earlier). Future coal supplies are however in some doubt as inspite of heavy loading at the pit heads, coal stocks have not been moving south at a satisfactory pace as the Southern Railway is still faced with the transhipment problem at various points referred to in the last issue (Vol V page 22) Hence though large supplies are in the pipe line; the actual stocks with the plant are causing anxiety. In the meanwhile of the 60,000 tonnes of the export target for Iran, the plants by November end had exported 36,000 tonnes and will be completing their quota by early February. Internal supplies in the State have also improved so that the open market price has fallen from Rs. 30 per 50 kg bag to Rs. 21.22 against the controlled price of Rs. 17.50.

Handlooms & Textiles :

The State Handloom Finance and Trading Corporation is to market handloom fabrics to help clear accumulated stocks. It has entered the wholesale and export markets and opened trade centres in Delhi, Bombay and Madras for this purpose. The government has also instituted three awards to the best exporters of handloom, cotton and silk handloom fabrics as a means of encouraging the finding of new foreign markets and boosting exports. The scheme staried in January 1975 is to run for 3 years and any exporters sending his goods through the State ports or airport will be eligible. The Corporation is also planning to help the marketing of stocks of the weavers who do not belong to the co-operative. The problem of unsold handloom goods is part of the larger problem dealt with by the Santhanam Committee for this State and Sivaraman Committee for the Country (see Vol IV pages 213-214 and 553) and their recommendations should be implemented without delay. There is the unfair competition of the powerlooms which have increased from 27,000 in 1960 to 3 lakhs today, out of which 2 lakhs are operated by the Bombay Mills using false, fictitious names. On the other hand there are 35 lakh handlooms in 7 lakh villages which are employing 80 lakh workers. Their cloth needs to be marketed and their financial needs have to be met in accordance with the Sivaraman Committee Report. As far as the textile mills in the State are concerned, apart from sharing in the revived demand for cloth referred to in the National section, one effect of the 40 per cent power cut has been to send up the price of yarn. Cone yarn price has increased by Rs. 10.15 per five kg, and hank yarn which is consumed by the handloom is moved up by Rs. 5.10 per bundle of 4.54 kg. In fact Coimbatore mills expect prices to go still further up, as a result of their abandoning the third shift and restricting supply. In this case their plea to the Union government to amend section 150 of the Industrial Disputes Act to limit the liability of employers to pay lay off compensations to 45 days instead of the current six to nine months does not stand on firm grounds. It is true that power reduction has become an annual feature in the State and will continue as such during the Fifth plan, and this will have to be taken into account in fixing any time limit for lay off compen-

sation But it is equally true as shown by current events that such lay offs also reduces yarn supply and pushes up prices and the ability of the units to pay the compensation. It is the handloom and textile producer and consumer who ultimately suffer. Hence the answer to this tangle is to help the mills to have their stand by generators and use the power bank proposal discussed in the last issue (Vol V page 2) to assure continuing production.

Foundries :

The Union Government has embarked on a programme for the modernisation of the 250 foundries in Coimbatore District. The programme involves the supply of modern machinery and equipment at a subsidised rate of interest of 5 percent. The market for GI casting produced by the foundries is expanding and hence the updating of their equipment and technology is timely.

Leather :

The deadlock over the proposal for 2 leather bodies (See Vol. III, page 648) a Leather Development Corporation under the ministry of Industrial Development and a Leather Export Development Corporation as a subsidiary of STC under the ministry of Commerce—may at last be resolved. The 2 man committee set up by the Union Government to examine these proposals has recommended a single Leather Corporation as an independent agency under the administrative control of the Ministry of Industrial Development, and to incorporate in it the leather division of STC, the centrally run bodies aiding tanners and footwear manufacturers, and the Tannery and Allied Footwear Corporation of Kanpur. This eminently sensible recommendation urged by this Bulletin repeatedly is based on the fact that the development of the leather industry including tanning is one integrated operation which will use all other animal products. meat, bones, hair etc. The proposed, body should only give financial and technical assistance and leave the States to help the industry. It is now for the government to accept and act on this recommendation and end the paralysis in the industry, which should also obviate the kind of hurried airlifting of cargoes as was done in early December when a 30 tonnes consignment of finished leather valued at Rs. 50 lakhs was sent to GDR.

Private Sector Reports :

Madras Fertilisers annual report for 1973-74 records a production of 2,20,000 MT of total nutrients, with the large ammonia plant run and full capacity production of NPK. The construction of the third NPK was started, 4,79,000 MT was marketed through institutional and private marketers, 21 villages were provided with fertilisers and technical aid under the village adoption programme and 91 per cent of the budgetted production with a net profit of Rs. 3.28 crores was attained. The 1973-74 annual report of Kothari's also records a good performance. The plantation division produced 19 lakh kgs. of tea and 923 tonnes of coffee and with the curing work earned Rs. 2.8 crores. The textiles division's turnover was Rs. 13.11 crores, up from last year's Rs. 6.2 crores, with exports of Rs. 76 lakhs. The Rs. 15 crores caustic soda plant now under planning will become operational in 1977. Kothari Sugar and Chemicals also had a good year, the new Sirugappa factory commissioned within 18 months crushed over 1 lakh tonnes of cane with 9.13 percent recovery, Kattur crushed 2.8 lakh tonnes upto June 1974 at 7.07 recovery. Both plants are to be expanded. The annual report for the

year ending 30 June 1974 of Sri Meenakshi mills, Madurai, records high profits, a modernisation programme of the Meenakshi Unit which is being extended to the Manaparai unit, plans for increasing loomage to use the yarn production in the State and the successful issue of Rs. 25 lakhs preference shares. The 1973-74 report of Consolidated Coffee records a doubling of profits and trebling of the capital investments ouer the past five years and plans for modernisation and expansion. KCP's annual report for the year ending 30 June 1974 records a good year with a profit of Rs. 3.3 crores before tax. It paid as price for sugar cane Rs. 116 per tonne (against the statutory Rs. 87.50) and crushed an average of 5,000 tonnes a day. Its cement and Central workshop units have been affected by the power cuts in Andhra Pradesh and this State. The joiut sector project – Arkonam casting and forging—has been registered, equipment ordered and the civil works started. Sakthi Sugar's report for the year ending 30 June 1974 is another success story. The quantity of cane crushed was increased from 6.88 lakh tonnes the previous year to 8.13 lakh tonnes, sugar output from 59,972 tonnes to 67,776 tonnes, at 4,000 tonnes daily crushing the expansion programme was completed, the distillery increased in production by 3.7 million tonnes to 12.99 million tonnes. It reports preliminary work as the furfural projeet, good labour management relations and increased welfare activities.

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IV Education, Science and Health

Unrest in Educational Institutions :

The seventeen incidents of student unrest registered in December are for the most part centred in this State. One running series is in Bihar in connection with the ongoing political agitation, including gheraoing of MLA residences in which constant clashes between students and the police were involved. Students in Baroda went on a rampage on the visit of the Congress President. A third involved Bombay University arising from the student demand for a judicial enquiry into the functioning of the University followed by a clash with the police. Two of the most serious incident were in U. P. Universities where buildings, furniture, records and property worth several lakhs of rupees were burnt down by students, along with violent clashes with the police. A sixth incident involved Andhra University where student disturbance and agitation resulted in closing of the colleges 4 weeks in advance of the scheduled vacation. The other 11 incidents occurred in this State in the colleges of Madras, Cheyyar, Tiruchy, Salem, Coimbatore, Madurai, Gudiyathum, Vellore and Tuticorin starting with violent disputes between students and transport workers in Madras, which spread to all the university college centres in the State resulting in their closure 4–6 weeks before the Christmas vacation and the

cancelling of the terminal examinations. This is one clue—the examination season is the agitation season. The question which arises is whether it is worth fighting around the kind of examinations that we have. Even the semester system in the engineering colleges has given rise to agitation. This means that the root causes are of course deeper and involve the whole education system, and in fact the whole social structure and its mores and values today. There is a debate under way on the question of the politicalisation of students and the teachers. The Bihar government in its draft Universities Bill 1974 bans political agitation by teachers and membership in any political party. It provides in the senate of our university representation for (a) President of the university student union, (b) one president of the colleges student unions,(c) two meritorious students and one distinguished in sports and other extra curricular activities, (d) president of the non-teaching staff of the university union and (e) president of the non teaching staff of the colleges unions. The CABE Committee on student unrest in its report recommends that students should familiarise themselves with party programme, should discuss them with party leaders, should be free to join the parties and should in fact become more politicalised, though participating in the discussion on food, clothing, education and health problems of the country. It notes with regret the intervention of political parties in universities, recommends that no student wing of any political party should be established in any university, and expresses the hope that improved teacher-students relationships will guide the students out of the political morass they are in. The late Mr. Krishna Menon voiced the same view that students should be more rather than less politicalised in his convocation address to the Delhi University this year. On the other hand the Vice-Chancellor and principals of Colleges in this State after a discussion of the issue have concluded that political parties must not intervene in colleges, they must not, as they do now, finance student elections, and they must establish a code of conduct to allow students and teachers to pursue their academic work. This whole debate seems somewhat irrelevant. Student leaders are involved in politics, and political parties, have a long tradition of financing student elections and activities. The issue now is to canalise this political interest and make education so relevant and related to the future life of the Country, that students, teachers, parents and even political leaders can play a positive and constructive role. But this involves also a change in the political ethics and a different mode of action of the political parties themselves.

Educational Reform:

Tamil Nadu government is running a crash upgrading training programme for 15,000 high school graduate teachers during the Christmas and Summer vacations in the new mathematics and science syllabi, which is being introduced in standard IX from July 1975 and going on to standards X and XI in later years. The orientation course lasts 10 days in each of the 47 educational districts, and will help the teachers to lay emphasis on problem centred activity oriented programme. These teachers in their turn should be required to train middle school and primary school teachers in the new maths and science appropriate to the lower classes. Only then will the new teaching programme become permanent.[1] The State Minister of Education also informed the legislature in December that the Government had accepted the CABE and State Planning Commission's recommendation for the 10 year school course, followed by a 2 year pre degree course and a 3 year

legree course and that an expert committee would be appointed to implement the new programme. The decision awaits the concurrence of the Madras University, which wishes to continue the present system and the provision of some financial aid from the Union Government, which is not likely to be forthcoming as no other state has received such aid. And so this State continues to stand outside the 10+2+3 staging that now runs in the 3 other neighbouring Southern States, as well as the other States in the Country. The major reform events in December was in the University field sparked by a striking analysis of the malaise in higher education which U.G.C. produced. It begins with pointing to the high rate of wastage and stagnation in our universities: at the first degree level the failure rate is 50 percent and in the post graduates examination 70 per cent of students in arts and commerce, and 40 percent in sciences are placed in the third division which is the next equivalent to failure. The growth rate, leading to lower per capita investment, dilution of standards, educated unemployment and the problem of the educated unemployables. Undergraduate education in academic and professional courses, it points out, is unrelated both to student aptitudes and national needs, as seen in the lack of middle level professionals (doctors, engineers etc.) needed in the rural areas. The quality of post graduate education is poor and there is serious imbalance in the spread of higher education—against a national average ratio of 5.5 college students per 1,000 population, Delhi has 13.6 and Orissa 2.2, the average colleges per district is 10 but several districts have none, the average enrolment or college is 800 but half the colleges have less than 500 students and only 15 per cent have the Education Commission norm of 1,500 students. There are 2 conclusions drawn by the UGC analysis which are, however, open to question. One is that overemphasis on research and publications by University staff is lowering teaching standards. The ICSSR Review Committee report drew the opposite conclusion – that inadequate and irrelevant research is lowering teaching standards because research is a major teaching input. The second conclusion is the plea for more funds—if Rs. 500 per student is needed, UGC should have Rs. 150 crores instead of the Rs. 29 crores this year. But as the analysis itself concludes "an increase in funds alone will not produce any drastic remedy." In fact funds have no relation to the need for University and education reform. Against this background some efforts are being made to reform the system. The Agricultural Universities are involving their students in agricultural operations, not only to give the students a sense of the real problems on which they are training but also to ensure that the agricultural research results flow into the farmers' operations and fields. The J. N. Technological University of Andhra Pradesh has introduced the continuous internal evaluation system in all its colleges, offering programmes on a semester basis of 13 weeks each, returning the scripts of all examinations after evaluation to the students, encouraging teachers to be innovative in construction of test papers, converting raw marks into grades, requiring at the end of each semester, for post graduate students, a semester performance index of not less than 5 and a cumulative performance index of not less than 5 and uses an external review committee composed of ITI professors to check on the internal evaluation system. Faced with the familiar paucity of funds, student indiscipline, fast falling standards and a rush for post graduate admission (15,000 applicants for 1,250 social sciences and 600 natural sciences seats), Osmania University after 2 years' work and with the approval of

educationists, parents and above all students has begun operating a programme of selective admission to the post graduate course the first of its kind in the Country, under which independent of the status and grade obtained at the B.A. or B.Sc., examination, all those who wish to enter post graduate studies are given an objective comprehension test in his particular subject, to indicate his understanding of the subject, accompanied by English language coaching for students who need it and orientation courses for the teachers in the selection system. There is of course the vast undergraduate problem to which it proposes to turn its attention next, but this bold selective scheme has already made its impact on the post graduate students and staff and could be adopted by all universities. The Madras university which is adopting the semester pattern in all M.Sc. courses from July 1975 (See last issue Vol. V page 26) is now preparing the courses to introduce it in M.A. and M.Com. courses from July 1976. One of the problems that lowers efficiency levels in the university is the large number of staff vacancies which is now reduced from 90 to 55. The problem of salary levels of university and college teachers is being dealt with on an all India basis. On the one hand the All India Federation of College and University teachers Organisation is pressing the Union and State Governments to introduce the new UGC scales in all institutions, on the other hand the State Governments are hesitant about finding the matching grants and the take over of the whole amount after the Fifth Plan. There is also the question of the relation of these new scales to the levels of primary and secondary teachers. In this State the Government has asked colleges to set up tripartite committees consisting of representatives of students, teachers and parents to consider and alleviate student grievances. In December, 43 colleges were closed in the State. The Government is also concerned at the low performance levels of government colleges. Out of its 49 colleges 25 colleges recorded less than 25 percent passes in PUC, and 10 less than 25 percent in B.A. and B.Sc. This is a waste of public funds needed more urgently to produce of food grains in this State.

Technical Education :

The Union Government has refused the request of the Karnataka Government for admitting a second group of students in its medical colleges in January 1975, as it would nullify the steps taken in June 1974 to reduce student strength in proportion to clinical facilities (See Vol. IV page 600). In turn the Government is not accepting the recommendation of the Medical Council of India to derecognise certain Medical Colleges. The Madras University is planning to set up next year a Department for continuing medical and engineering education to assist the updating of professional specialists in these fields. There is a proposal for the Institution of Engineers, Tamil Nadu, the Indian Institution of Plant Engineers, the South Indian Steam and Fuel Users Association and the Institution of Electrical and Electronic Engineers to convert their ad hoc consultancy services into a consultancy cell which will provide services to the self-employed entrepreneurs, particularly in the rural areas. This is a long felt need and will help not only the employment of technicians but the industrialisation of the backward regions of the State. The mechanical engineering branch of the Tamil Nadu Polytechnic, Madurai has developed a battery operated car at a cost of Rs. 2,700 which can carry one person and travel at 10 KM an hour. More work on this project is under way to make it a commercially feasible proposition. The IIT Guindy is starting a one year post

graduate course in Industrial tribology and corrosion technology to help in the improvement and cost of industrial goods. There is need for this new course to be supported by scientists and technologists specialised in the field of machinery maintenance and utilisation in which the record of the State and Country is poor. The problem of inventory control and materials management is a serious one in the Country. While in the developed countries, the sales inventory ratio is 6 : 1, in the best private industry in this country it is 4 : 1 and the public sector 2.7 : 1, so that inventory carrying costs is Rs. 30 crores locked up in unserviceable and obsolete stores. This accounts for a part percent of total costs, with Rs. 2,500 of the wasteful inflationary credit expansion and for 90 percent of the working capital being in inventories of materials. Of the total industrial costs, 60 per cent is in materials, 15 percent in wages and 20 percent others. involving Rs. 15, 000 crores in materials stock piling. It is urgent therefore that there be a scientific inventory policy in every industry and a materials management revolution to increase production, reduce costs and so help in the fight against inflation.

Science:

CMERI and MERADO have developed a 12 tonne semi-automatic welding machine which welds 2 pieces of metal by friction instead of by the conventional heat process. The friction caused by pressing and rotating the components results in welding dissimilar materials such as low, medium and high carbon steels, alloy, stainless steel and non ferrous metals. On the energy side, there are a number of possibilities opening up to conserve and increase our energy resources. A large amount of the national fuel consumption which is used for water heating, cooking and central heating can be economised by more efficient heat transfers, saving losses on thermodynamic availability in the combustion process, reduction of heat load through site selection, orientation and landscaping for solarchitecture and plastic insulation of ice factories. If the 40 major industries install additional equipment to generate steam at higher temperatures and pressures which is the total energy concept, they can generate 1,500 MW of additional electric power and utilise 90 percent instead of the current 30 percent of the energy in the coal or oil they are now using. Further BARC is developing the new uranium enrichment technology, using the laser method as a very cheap atomic fuel for the nuclear power plants. In the Agricultural research field, the All India Co-ordinated Research Project for Dry Land Agriculture, is concentrating its research on oil seeds and grains legumes, alternative sources of plant nutrients for dry farming and a priority listing of dry farming inputs. Animal husbandry research in the State received a boost with the award of the five first prizes to Tamil Nadu Cattle at the All India live stock show in December and the prize cattle are being exhibited at various Pongal exhibitions in the State.

Health :

Madras city corporation successfully concluded its campaign for 2,000 vasectomies as part of an annual 40,000 sterilisations in the city. The pressure on the city facilities is the addition of 60,000 persons per annum and while facilities are being expanded, they cannot keep up with this growth. Hence the 40,000 target. The first city camp showed the motivation for small families, as being due not to the incentives—free food for 3 days, film shows, 2 measures of rice plus Rs. 60 but the economic compulsions on the families. For the State as a whole, the

monthly bulletin of the Director of Health Services and Family Planning, reports that from April to August 1974, 30,766 sterilisations were performed, bringing the total from the start of the programme to August 1974 to 16.67 lakh sterilisations. During April-August 1974, 10,839 IUD insertions were made, bringing the total to 2.35 lakhs. Similarly conventional contraceptive users have increased by about 50 percent over last year, being 5,03, 834 during April-August. The total acceptors during the period was over 1 lakh, involving 3.3 lakh births being averted, the most effective programmes being in Madras, Nilgiris followed by Kanyakumari and Coimbatore. The National Population Conference in December in Delhi has proposed the setting up of high level Union and State committees to bring in new inputs and hasten the drop in fertility which also calls for full participation at the grass roots of voluntary and people's organisations. The pros and cons of the crash vascetomy camp approach were discussed and one State, Haryana, even proposed legislation to enforce no more than 2 children per couple, and an enforced Family Planning Programme to help a more rapid raising of living levels. The proposal was not, however, adopted as society is not ready for the surrender of this part of personal liberties. The Union ministry of Health proposes to create 2 services; (a) medical and health assistants and multi purpose workers in order to look after, in the rural areas, common ailments and provide simple preventive service such as immunisation, health education and family planning advice. The curriculam for this cadre is being developed for a 2 year course to which existing para medical personnel will also be admitted. This is very similar to the proposal for rural pharmacists proposed by this States's Planning Commission (Vol. II No. 8 page 29 and No. 9 page 33).

(b) health co-operatives to use those retired from Government service or those who do not wish to enter such service but serve in rural areas. The two services will make substantial contribution to rural health in the country.

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V Employment

Industrial relations in the State are disturbed in some sectors. In sugar mills workers went on strike from December 23, 1974 in pursuance of their demand for higher wages. The port and dock workers, rejecting the Government's award have also served notice for a strike from the middle of January. The Union government employees are agitating about the non-payment of the 4 DAs that were due to them between April and December and disruption of these service will add to the problem of the food and other essential articles distribution. On the employment front, the Maharashtra legislature endorsed, in December, the employment guarantee scheme, EGS, for rural areas in the State, under which the government provides full employment to those who seek it and for this purpose a special employment

guarantee tax is imposed on all viable sectors, that is irrigated farming organised industry, gainful professions, wealth and property holdings, lending and unearned incomes and those in employment, which will meet 50 percent of the cost of EGS, the other 50 percent being met from the State budget. The wage for men or women is Rs.3 for a seven hour day which is related to the price of Rs. 1.05 per kilo of jawar issued through that FP ships, with wages being paid weekly This programme is of national importance and should be followed by this State. Of course with the annual addition of 40 to 50 lakh persons to our labour force, and total employment in the organised sector being 1.7 crores, agriculture and small industry are the areas which have to be developed to sustain effectively any EGS in the Country. All the programmes to develop job oriented education, to delink University degrees from employment qualifications, and the crash schemes like employing educated persons in agricultural extension, primary school teaching, para medical rural work, adult education, survey and feasibility studies, afforestation etc., must be fitted into long term ongoing programmes of agricultural, cottage and small industry development as major employment providers.

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VI. Other Items

Indian Economic Association :

The 57th Annual Conference of the Indian Economic Association with 350 economists from all over India, along with the Annual Conference of the Indian Society of Labour Economics attended by 50 labour economists, met at Andhra University, Waltair from Friday December 27 to 29, 1974. The inaugural address was delivered by Mr. Raju, Pro-Chancellor of the University, the conference was welcomed by Mr. Appa Rao, the present Vice Chancellor and Mr. Bullayya who was the previous Vice Chancellor had invited and made all arrangements for the conference. The Presidential address for the Indian Economic Conference was delivered by Dr. Malcolm S. Adiseshiah, (See Vol. V, pages 53-65) and the Presidential address for the Indian Labour Conference was delivered by Mr. Sukhmoy Chakravarthy, which will appear as the second article in a future issue of the Bulletin. After the inaugural, the two conferences met separately. The major results of the Indian Economic conference which were summarised by its President in his valedictory address (See Second Article of this issue), were ; (a) A good technical discussion by each section of its subject, so that there was a broad and fruitful exchange of views among the specialists concerned with the themes of the 3 sections—recent trends in welfare economics, price policy and regional economic development in India. In this the early publication of the Conference Number of the Indian Economic Journal the quality of the leadership of the chairman of the 3 sections and the high techni-

cal specialisation of the economists were helpful. As a result, in each subject the major areas of controversies and the areas still to be researched were identified. (b) The symposium on the question, Are there recessionary trends in the economy debated by 12 economists from the two conferences, including the co-chairman Dr. Sukhumoy Chakravarthy. The chairman, Dr. Adiseshiah, concluded the symposium with statement that the answer to the question was-Not proved. It is difficult to isolate the stagnation in some sectoral price, demand and production from the secular trends of stagnation. The key to the recession trend is the rabi harvest and investment upsurges, he pointed out. (c) The Executive Committee and the General Body of the Association which met during the Conference took two major decisions which will transform the Association, the conference and all related activities. First after over seven years of struggling with it, a new constitution, that had been prepared by President and a sub-committee was adopted which gives the Association a body of officers who will have a minimum of continuity. In addition to the annually elected President, it decided to have a 3 year Vice-President, a 3 year Secretary and Treasurer and a 3 year Executive Committee (1/3 of whom will be retiring each year), so that the Association can develop in a more professional direction. The second important decision was to launch on this path of professionalisation by adopting a seven point programme of conferences, workshop, symposia, international exchanges, writing up the history of Indian Economic thought and publications for which a budget of Rs. 2 lakhs was voted. The General Body elected as the Association President for 1975 Dr. Bhabtosh Datta, as Vice President Dr. Gautam Mathur, as Secretary, Dr. Shanmugasundaram, as Editor of the Journal, Dr. Lakdawalla and as the executive committee 18 members from the major centres of Economic thought of the country. The conference and its members enjoyed warm and generous hospitality and help from the untiring efforts of Dr. B. Sarvewara Rao, the Honorary local Secretary, the staff and students of Andhra University and the city and people of Vishakapatinam, which represented a high water mark of sacrificial service.

Seminar on Improvements in the teaching of Economics :

The Seminar on Improvements in the teaching of Economics organised by the Indian Economic Association with the financial support of the University Grants Commission met after the Annual Economic Conference, also in Andhra Uuiversity, Waltair, December 30 and 31 under the Chairmanship of Dr. B. Sarveswara Rao, Prof. and Head of the Department of Economics Andhra University assisted by Dr. Lakdavalla, Prof. and Head of the Department of Economics, Bombay University. It was attended by Professors Adiseshiah (MIDS), Asit Bhattacharya, (Calcutta University), Brahmananda (Bombay University), Vikakshitra (Rajastan University), Dorothy Hahn (Cambridge University), Frank Hahn (Cambridge University), C. T. Kurien (Madras University), Madiah (Mysore University), Mahajan (Kurukshetra University), Gautam Mathur (Osmania University), Meti (Karnataka University), Nanekar (Nagpur University), Narula (ICSSR), Oza (Bombay University), Prasanta Patnaik (Delhi University), Rama Swamy (Annamalai University), Sabnis (Bombay University), Ranjit K. Sau (IIM, Calcutta), Saragapani (Gauhati University), Sebastian (Madras University), Shanmuga sundaram (Madras University), H. G. Singh (Patna University), Sinha (B. I. T. Pilani), and Uma Devi (Delhi University),. After inauguration by Mr. Bullayya, the ex Vice Chancellor of Andhra University and Dr. Malcolm S. Adiseshiah, ex- President

of the Association, the Seminar heard a brief presentation of teaching problems by 2 members Professor Brahmananda and Patnaik who had not circulated their papers. On the basis of the papers presented, it devoted its 2 days to a discussion of following 8 issues, against the background of the constraint to teaching economics in India, such as the overly large classes, the lack of text books, the language problem and the unadopted courses for different types of students. (a) the objective of economics teaching —the liberal—humanist purpose versus the consultant—technologist function, the high school, B.A. and the M.A. teaching—(b) the structure of the courses – obligatory and optional, mathematics and statistics (c) the relations with other subjects—Inter disciplinarity (d) major deficiencies and gaps and means of overcoming them—publishing text books—(e) methods of teaching—tutorials, discussion field work—(f) training of teachers—inservice and preservice (g) motivation of students and their involvement (h) evaluation. The major conclusions of the discussions on these seven issues were: (1) the aim of teaching at the B.A and M.A levels should be to train the students recognise economic problems, analyse economic problems using the macro level approach for Indian data such as farm studies, and to learn the techniques and tools of economics (2) the structure of courses should meet the above aim, should offer mathematics and statistics for those who are going in for B.A (Hons) or M.A. be divided into sub courses so that students at various levels and evening course students can make up by filling in their sub-courses which they have missed, include logic, politics and philosophy, history of economics thought and Indian economic problems, courses on concepts of both the market and non-market systems, accounting systems, with emphasis on practicals and field exercises. (3) The state of interdisciplinary studies is such that there is no possibility of interdisciplinary teaching today in our universities, and given the fact that our problems belong to all social sciences and not only economics, there is need to improve disciplinary teaching to build interdisciplinary teaching, make our course more flexible and enable economics students also to take other social sciences and senior teachers should equip themselves to teach about the great problems of our country which are beyond economics and pursue interdisciplinary research as an input into teaching. (4) The major deficiency of our teaching programme is the lack of text books, treatises, work and exercise books in economics arising out of our economic situation. It was agreed that in addition to using the best foreign economics books, recognising their structural and value base, there is need for the Association to organise the writing of economics text books by the best minds in the country, starting with compiling the research articles by subjects which have appeared in the Economic and Political Weekly, the Indian Economic Journal, and other Economic Journals, and readings in various subject areas of articles written by Indian Economists. (5) On methods of teaching economics every under graduate class should have a monthly practical and every post graduate should have field work as part of the course. The next important method is library work for which good libraries should be developed and tutorials for MA students should be organised. (6) On teacher training, every college economics teacher should have a refresher course which should be concentrated in a 3-6 weeks course on learning how to learn the entire undergraduate course, avoiding cramming the course with a lot of lectures and information. For those who are to become teachers there should be a post M.A. course such as M. Phil in which there should be some training educa-

tional mothods. (7) Evaluation is decisive as the syllabus, methods, and learning will then fall into place. The questions asked in the examination should lead from concepts to precise application of concepts, using semestors and internal evaluation for at least 60 per cent of the marks, combined with external exnmination. (8) Motivation of students who take up economics will depend on their participation in the training and learning programmes. The Seminar and discussions were of a high technical order and attained at times a satisfying level of academic excellence.

UNESCO:

One of the major programmes decided by UNESCO's General Conference in November 1974 is its participation in the new International Economic Order Programme set up by the special session of the U. N. Genral Assembly in April (See Vol. IV. pages 361-362). The problem is to take all the necessary measures towards closing and reducing the widening gap between the rich and poor countries and in this regard to propose terms of international trade, international pricing policies and technological transfers that will usher in such a just order. The political balance in the world is changing and the economic order must reflect this new emerging political constellation. For Unesco there are two obligations—the contribution it can make towards the new order and the restructuring of the Unesco's own programme in light of the demands of the new order. The Director of the Institute has agreed to act as advisor to the Director General of Unesco on this new International Economic Order Programme during 1975-77.

Cambridge University and Agrarian Change:

The Centre of South Asian Studies in the University of Cambridge has been over the last 2 years engaged in a study of Agrarian change in North Arcot district in co-operation with Madras University and in the Hambantota district of Sri Lanka in co-operation with the Peradenya campus of the Sri Lanka University. The results of the studies covering changed in paddy growing, the economics of pump sets in North Arcot and tractors in Hambantoto, the adoption rate of new technologies, rice milling technology, the water table, fertiliser supply and distribution, the capitalist vrs the marginalist farmer and the socio economic status of the populations of the area were reviewed in a 5 day seminar at St. John's College, Cambridge in December. These 2 micro-studies provided valuable information and insights into the problems of marketing, water power and use, fertiliser availability and distribution and indirectly on a whole host of other problems ranging from seeds and alternative technologies to rice milling and procurement, which with the caution of the time and space limitation of these studies, will be followed up in policy formulation and in further research in the two districts.

Association of Schools of Social Work:

The Indian Association of the Schools of Social Work organised a seminar in Madras in mid December on Development of the Backward Classes with special reference to scheduled castes and tribes. The seminar was attended by social work

specialists from all over the Country and its main conclusion was that there is need now for schools of social work to focus their training and research on the backward rural areas and rural people, that they may in the future need to locate some of their schools in rural areas, and that social workers must staff the PHCs, the rural schools, the SFDA, MFALs, the preschool programmes and nutrition and family planning Centres. One important suggestion with regard to future social work manpower was that these should be developed at the Union and State levels a cadre of social work specialists similar to the Indian Economic Service.

National Council of Educational Training and Research:

A field office of the National Council of Educational Training and Research was opened in Madras in December. The office can serve very useful purpose for education in the State. As far as education research is concerned, Tamil Nadu is a desert. Its Educational problems ranging from the low pay off of its vast educational expenditures, the high rates of its dropouts and pushouts, the educational attainments or lack of achievements of its student the reform of its curricula and examination system have no infrastructure of supporting research. It has 3 universities and several good teacher training colleges, but nowhere is there a programme of educational research. The field office can stimulate and promote these institutions to undertake research. A second needed function for the office is to bring the very good research being done by the Council in Delhi down to earth to this State. So little of its work on revision of science curricula and text books, radio, film and T. V. based education and improved teaching and evaluation methods has seeped down to the States. The field office might bring a much needed disaggregation of the councils research and training efforts.

School Broadcasts:

Directors of School Broadcasts of the All India Rado met in a national seminar in the last week of December in Madras to take stock of the school broadcasting programmes and plan for the future. In the course of their discussion some basic questions were raised as to whether the present programme should not be dropped and replaced by (a) broadcasts to support non-formal schools and training programmes (b) rural schools only (c) restricting the programmes to those schools who participate in a feed back system, dropping the programme where the State Department of Education is not fully committed to it and (d) reviewing the total AIR educational broadcastiug effort- farmer's functional literacy, health and family planning, newscasts and their effects to see what should be strengthened and what chopped out as dead wood.

Young Writers' Forum:

The Young Writers' Forum (See Vol. IV pages 390 and 603) celebrated its Anniversary in December with an exhibition of its published works and concentration on its future tasks. As one of the few popular intellectual organisations, it has been engaged in drawing the attention of young writers to the great issues facing the State and the Country –Inflation, Education, population growth and family planning etc. Through these activities the writings of its members have been influenced and informed. It decided for the future to continue along this path and concentrate on the major issues that will be facing the people as they prepare for the renewal of the democratic structure during this pre-election year. In this connection it has established a lecture series in Commemora-

tion of one of the country's writers, Frank Moraes.

Board of Continuing Education:

The Board of Continuing Education held the Sixth meeting in December to review the progress of its survey of non-formal education in the State (see last issue, Vol V, pages 31-32). The Departments of Education, Industries, Agriculture, Social Welfare, Fisheries, Health and Family Planning, Employment and Labour reported on the state of information available with them and being collected through the approved questionnaires. In addition the Department of Social Welfare offered to collect information from the Voluntary Organisation, and the Hindustan Chamber of Commerce survey the non-formal education activities of the Nationalised Banks and the private sector industries. It was agreed to meet at the end of January to review the results of the completed questionnaires. The Madras Adult Education Association held a meeting in December to review its adult education activities for the year and plan its programme for 1975. It decided to concentrate its efforts on the functional literacy programme in the slums.

January Development Seminar:

The paper for the January Development Seminar, Tamil Nadu Economy, 1973 by Dr. T. S. Venkataswami, Professor and Head of the Department of Economics, Presidency College, Madras together with a summary of the discussion of the paper at the seminar held on January 30th 1975 in the Seminar room of the Institute under the chairmanship of Fr. A. Devasia, Professor and Head of the Department of Economics, Loyola College, Madras appears as the first article in this issue.

Second Article:

A paper on Non Achievements and Achievements appears as the second article.

Book Review:

A review of Dr. Rahman's Co-operative Credit and Agricultural Development by Prof. T. C. Mohan, Project Director, MIDS and a review of the Council of Social Researches, The impact of film on society by Miss Meenakumari, Research Assistant, MIDS appear in the book review Section.

TAMIL NADU ECONOMY—1973

By

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I–INTRODUCTION

1.1. Tamil Nadu, known for a long time as a progressive State, seemed to have fallen into the grip of retrogression during the year 1972-73. Over the last twenty years, the State had made some impressive gains in industry and power and agriculture and earned the distinction of being the third in the Nation in terms of industrial progress and second in agricultural development.

1.2. But in 1972-73 both State income and per capita State income in real terms declined mainly due to a fall in production in the primary sector and the sluggishness of industrial output. The State also witnessed during the year under review a serious power shortage crippling its industry and agriculture. The unfavourable monsoon, which has become a recurrent feature in the Nation and the State, further worsened the situation. The inflationary spiral and shortages of essential commodities caused great hardships, particularly to low and fixed income groups all over India and the State. The food situation in the State was, however, not unsatisfactory and increase of foodgrains prices was comparatively moderate owing to an increase in food production despite the unfavourable weather conditions.

II–STATE INCOME

2.1. The real State income and per capita State income along with the National income of the recent years are presented in Table-I. A decelerating trend is found in the growth of both State and National incomes during the years 1971-72 and 1972-73 with successive declines in the percentage growth over the previous year. In 1972-73 the performance of the State with respect to growth was worse than that of the Nation, for the State income actually declined while the National income showed a small increase. The percentage change of the State income over the previous year was, in fact, negative at -0.2, when the corresponding national figure was marginally positive at 0.4.

TABLE—1

Income at constant 1960-61 prices

				Percentage change over the previous year		
	1970-71	*1971-72*	*1972-73*	*1970-71*	*1971-72*	*1972-73*
State income (Rs. crores)	1,469,45	1,552.64	1,549.90	8.8	5.7	—0.2
Per capita State income (Rs.)	363	376	368	6.8	3.6	—2.1
National income (Rs. crores)	18,708	19,033	19,101	3.2	0.8	0.4
Per capita National income (Rs.)	346	344	338	1.9	—0.6	—1.8

Source: Tamil Nadu—An Economic Appraisal 1974.

2.2. The real per capita income both at the State and National levels declined in 1972-73 over the preceding year by 2.1 per cent and 1.8 per cent respectively. Thus, it is obvious that while the performance of the national economy in terms of total and per capita incomes during the year under review was unsatisfactory, the performance of the State economy was still more depressing.

2.3. The year 1972-73 was, of course, an exceptionally bad year for Tamil Nadu from the point of view of its economic performance. On the basis of the poor performance in a single year, we need not become unduly pessimistic about the future prospects of growth of the State. Nor should we entertain and extend to our people exaggerated and unrealistic growth rates for the future in total disregard of our past performance. As per data provided by the 1974 Appraisal document, the real per capita income of the State has increased only by Rs. 38 between 1960-61 and 1972-73, from Rs. 330 in 1960-61 to Rs. 368 in 1972-73. Viewed against this performance of the State over a twelve-year period in the immediate past, it is difficult to believe that the declared objective of the Perspective Plan of doubling the real per capita income in a twelve-year period in the immediate future can be achieved.

2.4. The Appraisal document attributes the decline in the overall growth of the State economy during the year under review primarily to the setback in production in the primary sector which had not been adequately made up by increases in the production of the other sectors. Table II gives the changes in sectoral incomes during the last three years.

TABLE—II

Variations in Sectoral incomes in real terms

Sl.No.	*Sectors*	*Percentage change over the previous year* 1970-71	1971-72	1972-73
1.	Primary	12.5	5.7	—4.2
2.	Secondary	5.9	3.5	4.0
3.	Trade, Transport and Communications	8.3	6.0	0.2
4.	Finance and Real Estate	6.1	6.6	7.6
5.	Community and Personal services	4.1	8.5	2.6
6.	Net State Domestic Product	8.8	5.7	- 0 2

Source: Tamil Nadu—An Economic Appraisal 1974.

III—AGRICULTURE

3.1. The Appraisal document comments that "for the third time since 1960-61, had there been a fall in real State income during 1972-73, every time brought about by a failure in the agricultural sector". It further asserts that "while the position in the State continues to be comparatively satisfactory, the damages inflicted on crops by the failure of the monsoon and by the floods and cyclones combined with the power shortage reduced the tempo of agricultural development during 1971-72 and 1972-73, which had started gaining momentum after 1969-70".

3.2. *Foodgrains :* In spite of the adverse conditions listed by the document, the total production of foodgrains increased from 68.84 lakh tonnes in 1971-72 to 72.4 lakh tonnes in 1972-73 and this was why the food situation in the State during the year under review was comparatively satisfactory. It must be admitted, however, that the achievements fell short of the targets fixed by the Fourth Five year plan. As against the target of 75 lakh tonnes of foodgrains production for the year 1972-73, the actual output was 72 lakh tonnes and the provisional estimate of 73 lakh tonnes in 1973-74 is below the target figure of 79 lakh tonnes at the end of the Fourth Plan.* Foodgrains production increased in every item except in ragi. The increase in foodgrains production was largely due to the increase in rice production which was almost equal to the target figure of 55 lakh tonnes for 1972-73. The increase in rice production was brought about partly by an increase in acreage but mostly by improvement in productivity. Apparently, neither monsoon failure nor power cut had any appreciable adverse effect on rice production. The production of millets did increase but the increase was not significant and there was little increase in the productivity of millets except in cholam. The insignificant increase in millets production is due to the dependency of these crops on monsoon and timely rains. Also, millets are yet to be brought under high yielding varieties on a large scale.

3.3. The setback in the primary sector which pulled down the level of State income and per capita income cannot be attributed to foodgrains as the total foodgrains production showed an increase in 1972-73. Nor can it be said that monsoon failure and the consequent power cut were solely responsible for the poor performance of the primary sector, as the Appraisal document seems to contend. Table 3 1 of Volume II, of the document does not indicate any total monsoon failure, for the rainfall in 1971-72 and 1972-73 was 969 millimeters and 986 millimeters as against 918 millimeters in 1970-71. The total amount of rainfall during 1971-72 and 1972-73 was above the normal rainfall of 946 millimeters. Power generation as well as power availability increased during the year 1972-73, although there was a power shortage relative to demand.

3.4. *Commercial crops*. The setback in the primary sector has, therefore, to be attributed to the decline in the production of commercial crops. The production of major commercial crops such as sugarcane, cotton and groundnut declined in the year under review. The production of sugarcane declined by 8.3 per cent from 1,076 thousand tonnes in 1971-72 to 987 thousand tonnes in 1972–73 due to a decrease in the area under sugarcane and in productivity. The contention of the Appraisal document that the reduction in yield was due to the unfavourable weather conditions is not entirely convincing, since sugarcane is mostly an irrigated crop. It is, perhaps, more reasonable to maintain that productivity declined because of shortages of fertilisers and the consequent fall in fertiliser consumption in 1972-73 and that the total sugarcane production declined because of the additional factor of uncertain price situation. Indeed price fluctuations among the commercial crops have been widest in respect of sugarcane. Thus, the economics of sugar—cost-price relationship and demand-provides a better explanation than weather for the fall in sugar production. In cotton and groundnut both of which are mostly unirrigated, there was a decline in area as in well as

* Fourth Five Year Plan 1969-74, Tamil Nadu, Draft Outline, pages 372-93. Annual plan 1972-73, Narrative Notes on Programmes, Government of Tamil Nadu, pages 8-9.

in productivity. Production of cotton declined from 423 thousand bales in 1971-72 to 352 thousand bales in 1972-73. Groundnut production fell from 1,253 thousand tonnes in 1971-72 to 1,047 thousand tonnes in 1972-73.

3.5. *Animal Husbandry, Fishery and Forestry*: The other activities falling under primary sector are concerned with animal husbandry, fishery and forestry. Although the output of animal husbandry products showed some increase in 1972-73, it is far below requirements. In a country which is known for its immense livestock population, production of milk and meat is miserably low essentially due to the poor quality of livestock. The phenomenal shortage of milk supply compared to milk requirements is mainly due to the low productivity, the average milk production of the cow being stagnant at about 190 litres and that of a buffalo at 500 litres per annum. The average production of dairy cattle in developed countries varies from 3,000 litres to 5,000 litres per year.* In fishery, the overall production in the State recorded an increase primarily due to inland fishing. The production of marine fish registered only a marginal increase and this means that the State has not yet made any serious attempt to exploit the marine-fishing potential. In forestry, the alarming feature was the decline in the area and in all forest products. The reduction in area, which was brought about by diversion of the forest area to non-forestry purposes such as assignment to landless poor, agricultural and irrigation schemes, etc., took place in an already sub-optimal situation, the State having only 16 per cent of the land area under forest as agaist the national average of 23 per cent and the optimum level of 33 per cent. The government has now taken a wise decision of not assigning any more forest lands for non-forestry purposes.

3.6. *Two sectors of agriculture*: Agriculture continues to be the predominant sector contributing 41 per cent of the State income and employing 61 per cent of the working population. It contains two sectors: traditional and modern. The traditional sector is characterized by primitive methods of cultivation, low productivity and high degree of unemployment. In this sector we have the dry farming area subject to the vagaries of the monsoon which constitutes about 56 per cent of the total area sown and in which about 50 per cent of the farmers are engaged. (In the Nation 80 per cent of the net area sown is dependent on monsoon and 60 per cent of the farmers are dry farmers). High yielding variety seeds, fertilisers and improved implements have not reached this sector in any significant scale and animals provide the main source of power. The extent of disguised unemployment is likely to be much higher in the traditional sector than in the modern sector. The incomes and wages of the farmers and agricultural labourers are very low.

3.7. The modern sector of the agriculture of the State, which has been expanding over the years, is characterized by irrigation improved, methods of cultivation, application of HYV seeds, fertilisers and increased productivity. The net irrigated area increased from 2,417 thousand hectares in 1968-69 to 2,816 thousand hectares in 1972-73 and the per centage of net area irrigated to net area sown has increased during the same period from 41 per cent to 44.7 per cent. In irrigation Tamil Nadu is in the forefront of the nation next only to Punjab, with more than 44 per cent of the sown

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* Vadilal Daglied: Natural Resources in the Indian Economy, page 125.

area irrigated compared with the 20 per cent All-India average. This progress has been made with the limited amount of water resources available in the State which are nearly exhausted. The per capita water resource of Tamil Nadu has been estimated at 570 cubic metres against the All-India average of 4,000 cubic metres. The application of HYV seeds is mostly confined to paddy and the productivity of rice has registered some significant increase. The yield per hectare increased from 1,502 kg. in 1968-69 to 2,000 kg. in 1972-73. Yet, the present productivity level is many times smaller than that of the advanced countries raising doubts whether any Green Revolution at all has taken place in rice production. The State occupies the second position in the Nation in fertiliser consumption per hectare of net cultivated area. Judged on the basis of the four indicators: (i) percentage of area irrigated to net cultivated area, (ii) fertiliser consumption per hectare of net cultivated area, (iii) yield in cereals per hectare and (vi) per capita production of cereals, the State of Tamil Nadu enjoys the second rank next only to Punjab in the matter of grain availability in 1971-72.*

3.8. *Possible lines of action*: While it is a matter of some satisfaction that the State has made considerable progress compared to the other states, a great deal more is yet to be accomplished to modernize agriculture and bring about a genuine Green Revolution The lines of action needed on the agricultural front are clear enough; but the problem here, as elsewhere, is whether we have the necessary will, determination, perseverance and sincerety of purpose to implement the required schemes successfully in actual practice.

3.9. *Planning against unfavourable weather*: We know pretty well that we will frequently encounter unfavourable weather and, therefore, no purpose will be served by harping upon bad weather and holding it responsible for our frequent failure on the agricultural front. On the contrary, we ought to plan, at least now, to counteract the adverse effects of unfavourable monsoon by storing sufficient water to be used during periods of drought. The answer to unpredictable monsoon is irrigation. We have observed that the water resources of the State are limited and nearly exhausted. But the nation has immense water resources and if they are effectively channelised for extensive irrigation, then the recent statement of Daniel Moynihan that India could eventually feed the world cannot be dismissed as pure fantasy. Projects like Godavari-Cauvery link and Ganga-Cauvery link—the latter has been endorsed by the U.N. team of experts—and the creation of regional and national water grids have been accepted in principle and these schemes must be pushed through with unflinching determination and vigour. The obstacles to the initiation and execution of these projects will be political rather than technical or financial. The major prerequisites for success are a willingness on the part of the states to bury parochial chauvinism for their mutual interest as well as for national welfare and an enlightened leadership both at the Centre and the States.

3.10. *Japanese method of paddy production*: We have seen that during the recent years the productivity of paddy has increased primarily as a result of using HYV seeds and of applying fertilisers. But as of today, the productivity of paddy per hectare in the State remains

* The Economic Times, January 7, 1975.

less than one-fourth of the Japanese productivity. Prof. Ishikawa has made a comparative study of agricultural inputs and outputs in Tamil Nadu and Japan. The details of his findings are given in Table—III.

TABLE—III

	Gross Crop Income (Paddy equivalent in tons per hectare)	*Labour Input (working days per hectare)*	*Total fixed capital excluding land (Paddy equivalent in tons per hectare)*
Madras	1.31	115	2.92
Japan	5.39	543	7.69

Source : Shigeru Ishikawa, Economic Development in Asian Perspective, page 226.

The Japanese productivity per hectare is four times higher than that of Tamil Nadu and the most striking fact is that the Japanese labour input per hectare is nearly five times as large as that of Tamil Nadu. Another notable feature of the findings is that both the stock of capital per labour input and the capital-output ratio are higher in Tamil Nadu than in Japan. If these findings are correct, then we can draw a guideline of far-reaching importance for our future action. The analysis suggests that our existing agricultural pattern is of extensive type, not of intensive one. If we could follow the Japanese pattern of paddy cultivation, we can increase our productivity per hectare by employing a good deal of additional labour but without the necessity of having to increase capital per worker. Thus, by one stroke we achieve higher productivity per unit of land and also eliminate rural unemployment— open or disguised.

3.11. *Improving dry farmtng technology* : Bringing all the dry lands under irrigation will take a long time and hence, in the meantime measures must be taken to improve dry farming technology. Drought-resistant and high yielding crops should be evolved. Concentrated research must be unndertaken to evolve HYV seeds for such crops as pulses, cotton, oilseeds and fruits and vegetables whose productivity has for long stayed stagnant at low level. The Kovilpatti research station is promoting extensive cultivation of sunflower, hybrid cholam, cumbu, ragi and groundnut. The National Commission on Agriculture is planning a drought code to help the Departments of Agriculture to handle weather problems by taking anticipatory and preventive action before, rather than relief action after the damage. Such efforts must be intensified.

3.12. *Fertiliser production* : It is a well known fact that the State and the Nation suffer from perennial and severe shortages of fertilisers. Fertiliser usage per hectare in India is only a small fraction of what some of the other underdeveloped countries like Egypt and Taiwan are using.*

* Colin Clark : Lecture delivered at Presidency College. Madras.

Therefore, high priority has to be assigned for fertiliser production and in this field we must explore the possibility of constructing small fertiliser plants as China is reported to have done. It is said that China has 7,400 small chemical fertiliser plants catering 60 per cent of the fertiliser requirements of the nation.

3.13. *Land Reforms* : It is widely held that land reform in the form of elimination of middlemen and distribution of surplus lands arising out of land ceiling to the actual tillers is an essential Institutional change needed for agricultural progress. (The Agpraisal document does not make any mention of the land reform acts including the latest one pending for the approval of the President). Considering the second aspect of the problem first, land distribution programme of the State is, undoubtedly, a failure. Our present land ceiling limit which varies between 12 ordinary acres of best wet land and 60 ordinary acres of dry land is in conformity with the views of the Central Land Reforms Committee. But due to a variety of evasive actions like partitions, sales, benami transfers etc , the surplus land available for distribution among the landless shrunk to an insignificant amount. According to the latest and authoritative estimates furnished by the Director of Land Reforms, the anticipated surplus land will come to about 1,50,000 ordinary acres when all the existing Land Ceiling Laws are fully implemented. The extent of land actually assigned from 1961 till todate - in a period of more than a decade - amounts to no more than 31,000 acres. This is a sad commentary on our redistribution programme. The distribution of 1.5 lakhs of acres to the landless labourers (numbering 44 lakhs) out of total cultivated area of 155 lakhs of acres can, by no stretch of imagination, be considered as a revolutionary change which could radically transform our agrarian structure.

3.14. The latest measure taken by the Government of Tamil Nadu on land reform is the passing of the Bill enabling the tenants to purchase the ownership of the land they are cultivating and it is awaiting the assent of the President. If the bill becomes law and if the law is effectively implemented, it would result in the abolition of absentee landlordism and investing ownership of the land on the tiller.

3.15. The sphere of land reform in which the State has done next to nothing is in respect of consolidation of fragmented holdings and creation of economic holdings. One of the major factors retarding agricultural progress is the existence of uneconomic, subdivided and fragmented tiny holdings which prevent the adoption of efficient methods of cultivation. Following the lead of Punjab which has completed consolidation, our State mnst act urgently and pass legislation not only for effecting consolidation but also for creating economic holdings. Views do differ on the extent of land which can be said to constitute an economic holding. For Tamil Nadu 5 acres of irrigated land and 20 acres of dry land may be taken as a rough indicator of an economic holding which may be expected to afford a reasonable standard of living to the cultivator and provide full employment to a family of normal size.

IV—INDUSTRY

4.1. The performance of the industrial sector was less than satisfactory during the Fourth plan, the growth rate steadily deteriorating as the plan was drawing to its close. The index of industrial production (given in calendar year) registered an increase of only 15.5 points, from 172.5 in 1969 to 188 in 1972. Table 4.1 of Volume II of the Appraisal document reveals that production declined in 25 out 46 industries during the calendar year 1972. In the months that followed the situation became

worse. The general index of industrial production which rose by a more 2.2 per cent in 1972 over the previous year fell sharply by 11.9 percent in January-September 1973 as compared to the corresponding period in 1972. Production in basic goods, capital goods and intermediate goods declined and in consumer goods as a whole there was a slight increase in output. As a matter of fact, in 13 out of 16 important selected industries grouped under the above headings production declined. Even as the output trend was unfavourable, the number of registered companies and factories increased from 6,412 in 1971 to 6,651 in 1972 and 6,713 at the end of September 1973. But their employment level was sluggish and the quantum of "Capital issues" declined reflecting the halting production trend.

4.2. The Appraisal document does not really evaluate the performance of the industrial sector, for evaluation has to be made on the basis of the physical targets set, cost structure, capacity utilization, etc., in different industries. Neither Draft Outline of the State Fourth plan nor the Appraisal document contains the data needed to evaluate performance. What all the Draft Plan contains are targets of expenditure on different industry groups and the Appraisal document merely talks about increases or decreases in production index over the previous year and enumerates the reasons for declines which are always too readily available. The document is likely to misguide the gullible into believing that our failures are justifiable because of forces beyond our control and that the Government has done everything that needs to be done and done it rightly too. It does not even remotely suggest that shortages and bottlenecks causing industrial stagnation could have been avoided, or, at least reduced and better results achieved by better planning and foresight on the part of the Governments—both Central and State.

4 3. The factors enumerated to explain the unsatisfactory performance of the industrial sector are power cut—a consequence of monsoon failure—,shortages of essential raw materials like coal, steal and non-ferrous metals and transport bottlenecks caused by wagon shortages and industrial unrest. Cotton textile industry, for example, which gets a high weightage in the index, has suffered as a result of the decline in cotton output and of mandays lost on account of industrial disputes. Production in engineering industries was held back by shortages of steel, coal and non-ferrous metals and also by transport difficulties. Many of the factors which have retarded industrial and agricultural growth are directly traceable to faulty planning and short-sighted policies pursued by both Central and State Governments. Admitted that the failure of monsoon is not man-made, the adverse effects of unfavourable weather could have been kept under control if we had planned in the past in anticipation of the unpredictable weather. The degree of shortages and bottlenecks is a measure of failure on the part of the planners in estimating the demand and supply of essential raw materials and determining the appropriate productive capacity in different industries. The labour policy of the Government is, perhaps, partly responsible for the rash of labour disputes causing considerable loss of mandays. While strikes and lockouts cannot be altogether avoided in a democracy, a more enlightened policy on the part of the Government divorced from political considerations in respect of labour disputes and a concern for community interests on the part of both management and labour would have ensured better performance on the production front.

4.4. It must be admitted that the industrial stagnation is partly due to lack

of adequate investment in the State by the Centre during the Fourth Five Year Plan, although the State Government has made valiant attempts to maintain the tempo of development by setting up new agencies. The only major project started in the Central Sector is the Salem Steel Plant and even here the pace of work has been slow and tardy not only because of economic factors but due to political considerations as well. The State Government has set up new agencies to help industrial development like Tamil Nadu Industrial Development Corporation, State Industries Promotion Corporation, Tamil Nadu Small Industries Corporation and Small Industries Development Corporation. Another significant development in the State policy for industrial development is the encouragement and promotion of joint ventures with the private sector. The Southern Petro-chemical Industrial Corporation, Tuticorin Alkali Chemicals, Tamil Nadu Chemical Products and thirteen other projects have been sponsored under the joint sector. Some of these projects are located in backward regions of the State with a view to promote regional balance. The Government has also taken over certain sick industrial units particularly textile mills to ensure their continued operation.

4.5. In spite of all these efforts on the part of the State Government and despite the fact that the number of new companies registered during the last two years has increased, the quantum of capital raised is considerably low in relation to the national trend and one of the reasons for this is the fact that most of the companies set up in the State are small in size. Inadequate increases in investment apart, the existence of idle capacity and particularly its increasing magnitude is yet another important reason for the industrial stagnation of the State during the recent years. The Appraisal document does not contain any information on the extent of idle capacity. A study undertaken by the MIDS on the utilisation of installed capacity in public sector enterprises has made an estimate of idle capacity which varies from zero to 59 per cent. Although the coverage and the information-base is narrow and inadequate, the study provides some rough insights into the reasons for non-utilisation of full capacity and indicates a course of action to reduce, if not to eliminate altogether, idle capacity. The steps that need to be taken to ensure fuller utilisation of installed capacity are : (i) establishing proper machinery to estimate demand; (ii) formulation of appropriate price policy, ensuring quality control and cost reductions; (iii) using modern management techniques to reduce inventory and working capital requirements on the assumption of continuation of the present tight credit situation; (iv) establishing a repair and maintenance service to foresee and prevent breakdown of machinery; (v) granting a basic minimum of management and commercial autonomy; (vi) ensuring uninterrupted supply of power and raw materials; and (vii) establishing industrial peace.

4.6. *Small scale and cottage industries*: The small scale and cottage industries continue to play a significant and complementary role in the industrial set-up of the State and their number has increased enormously from about 10,000 in 1966 to 40,000 in 1973. The contribution of the small scale seetor to the income-generation of the manufacturing sector is a little over half of the total. The government has been promoting the small scale industries by extending financial assistance, providing for the import of raw materials and machinery and setting up industrial estates with built-up factory units. In spite of the help rendered by the Government,

these industries are facing the problems of shortage of raw materials, the defects in the distribution of iron and steel, delays involved in the licensing system and the effects of credit squeeze. Some of the areas of action needed by the small scale sector are increased assistance by the Government to entrepreneurs to buy machinery on hire-purchase, effective distribution of chemicals to the match industry, opening of State offices in Calcutta and Delhi to obtain a fair share of steel and adequate bank credit.

V—POWER

5.1. Power has been considered the Achilles heel of the State economy and power shortage has been singled out as the major cause for retrogression in the primary sector and stagnation in the industrial sphere during the year under review. In analysing the current power shortage, three broad developments have to be kept in view. First, the State occupies as of today a pre-eminent position in the Nation in the field of power generation. Second, the pace of power generation has slowed down during the recent years. Third, the quantity of power in absolute terms has increased, not declined, during the year under review. Tamil Nadu has achieved great progress in power generation, as in irrigation, in the comparative sense by harnessing its slender hydro resources and constructing thermal plants which are operated with the help of imported coal. The industrial development of the State was to a large extent due to the progress made in power generation. In terms of installed capacity, the State enjoys second rank in the Nation with 2,171 MW as in November, 1972. Only Maharashtra is lightly ahead of Tamil Nadu with an installed capacity of 2,174 in the same year. In terms of daily availability of power, the State holds the third place. The installed capacity of Tamil Nadu is about one-half of the total capacity of the entire Southern region and four times greater than that of Kerala which happens to be a surplus State.

5.2. The fact that Tamil Nadu is way ahead of most other states in the Nation does not mean that it has been producing enough power in relation to demand or that the targets with regard to power have been fully realised. As a matter of fact, in relation to demand the daily deficit of Tamil Nadu is highest in India with the sole exception of Haryana. The State had originally planned to step up power availability including purchases from an estimated 5,495 million units at the beginning of the Fourth Plan to 8,771 million units by 1972-73 and to 9,859 million units by 1973-74. But the actual output and purchases increased from 5,260 million units in 1968-69 to a peak of 6,855 million units in 1972-73 and declined in the following months.

5.3. Although the achievements fell short of the targets, the actual installed capacity as well as power generation have been increasing during the Fourth Plan but at a slow rate. An important fact to be noted is that the pace of increase in generation was lower than that of installed capacity. Several reasons have been cited for the slackening of power generation. First, the tying up of the hydel plants with irrigation discharges has reduced power generation. Second, technical problems and shortage of coal have reduced the generation capacity of the thermal plants. Third, there has been an alarmingly low utilization of the existing capacity. Total capacity utilization in the hydel and thermal plants has been only 35 per cent in 1971-72 as well as in 1972-73, with only Pykara, Moyar, Kundha I and II of the 23 hydel and thermal projects using 50 to 68 per cent of the capacity. And lastly, the failure of monsoon has had its share in slowing the pace

of power generation, although the total rainfall increased in the year 1972-73 over the previous year.

5.4. While the adverse factors listed above reduced the pace of power generation, neither the total quantity of power generated nor the total of power generated and purchases from the states declined during the year under review. On the contrary, power generation increased from 6,289 million units in 1971-72 to 6,552 million units in 1972-73 and the grand total of electricity generated and purchased increased from 6,816 million units in 1971-72 to 6,855 million units in 1972-73. The implication is that the power cut was not the result of any decrease in power availability as such. Rather it was due to the widening gap between supply which was increasing at a slow pace and demand which was allowed to expand too rapidly. Had demand been kept under control by avoiding untimely additional line extentions and the available supply judiciously used, a sudden and steep power cut with its disastrous effects of bringing industry and agriculture to a grinding halt could have well been avoided. Indiscriminate and hurried expansion of rural electrification in recent years when the supply position was tight and wasteful uses of power were at least partly responsible for an abrupt power cut. During the year under review, the total power available consisting of generation and purchases was 6,855 million units while the total power sold was only 5,362 million units. Thus, there was a difference of 1,493 million units between power available and power sold and the difference works to 22 per cent. Part of this difference could be attributed to transmission loss whose All-India average is 12 per cent. The remaining part is possibly due to technical faults and unauthorised consumption.

5.5. A good deal of power scarcity is attributable to factors such as delays in the completion of power projects, utter inefficiency in the working of power plants as revealed by the existence of huge idle capacity, failure to plan for and ensure the supply of required inputs and to minimise transmission losses, mismanagement, waste, theft and lack of planning to maintain a rough balance between supply and demand. The scarcity of power has, no doubt, been accentuated by recurrent monsoon failures. But, while monsoon failure can explain a part of the current power shortage, it cannot provide a complete explanation for the scarcity situation we are facing today which is the cumulative result of past acts of commission and omission with regard to power generation and use.

5.6. The Appraisal document ignores or glosses over many of these factors which are responsible for power shortage and power cut. As a piece of documentation, it is admirable. But as an appraisal, it is a colourless and monotonous document busy with finding excuses for failures, rarely providing guidelines on pressing economic issues, all the time accusing bad weather as the villain for all the ills and woes the State economy. It is replete with laudatory statements about the performance of the economy whether justified or not. There is, in fact, no appraisal in the document, much less critical appraisal. It furnishes, however, a mine of data which will be useful for anyone who wants to study, understand and evaluate the performance of the State economy.

5.7. The present critical shortage of power supply calls for certain remedial measures and changes in policy both at National and State level. The generation and distribution of electricity is mainly in the public sector and managed by the State Electricity Boards. There is, a pressing

need for a radical change in the personnel and management policies of the Boards in order to eliminate waste and ensure efficient functioning of the electricity plants. Appointment of competent technical men and granting of sufficient freedom for initiative and action are the basic requirements for improving the technical performance of the power plants.

5.8. From the long range viewpoint, the generation of power has failed to keep pace with the steadily increasing demand due to slow implementation of power schemes, inadequate installed capacity, existence of idle capacity and inadequate inter-state transmission lines. If recurrent power shortages are to be avoided, the above problems must be tackled successfully during the Fifth Plan period. Finally, as in the case of irrigation, the Government must act to create regional and national power grids to transfer power from surplus states to deficit states.

5.9. As for Tamil Nadu, a power shortage is anticipated at the end of the Fifth Plan even when all the proposed projects including Kerala's Idikki project and Karnataka's projects undertaken with the collaboration of Tamil Nadu are completed. Hence, it is all the more important for Tamil Nadu to explore the possibility of forging closer links with all the neighbouring states and undertake more joint ventures if the State wants to avoid agricultural and industrial stagnation in future.

VI-EMPLOYMENT

6.1. According to the Census Report of 1971, the pattern of employment in the State as well as in the Nation continues to remain along the traditional lines. The percentage distribution of the total working population of 14.74 millions in the State among the different sectors is as follows:

Primary sector.........65
Household industry...5
Manufacturing 9
Services..... 21

While 9.5. millions are engaged in the primary sector, only 1.3 millions of the working population are employed in the manufacturing sector. The concentration of the working population in the traditional sector has kept down the per capita income of the rural population. The aim of the Fourth Plan to solve this problem by increasing agricultural production and diverting some of the labour force from agriculture to industry has scarcely been achieved. The swelling number on the live register of the employment exchanges shows that the urban sector has not been able to absorb adequately the rural labour seeking employment in the cities and towns in spite of the increase of employmeat level in the organized sector. The employment in the organized sector in 1972-73 increased by 3.6 per cent and this rate was much higher than the 2.15 per cent increase in the previous year.

6.2. *Unemployment :* The Appraisal document throws no significant light on the grave problems of unemployment and under-employment, although it gives employment exchange statistics and contains a section on under-employment whose reliability may be readily challenged. This is by no means surprising since no serious attempt has been made either at the State or National level to estimate the magnitude of unemployment and under-employment on a year-to-year basis covering all the facets of the problems. The Bhagavati Committee attempted a one-time estimate of unemployment and the Draft Fifth Plan neither refers to

it nor makes any attempt of its own to estimate unemployment.

6 3. The State Planning Commission has made some estimate of unemployment in the State and recommended a course of action to deal with the problem, since one of the objectives of the Perspective Plan is to achieve full employment by 1984. That this estimate is nothing more than a crude guestimate is implicitly admitted by Dr. Malcolm Adiseshiah -the dynamic member of the State Planning Commission —in his frank and forthright keynote address delivered at a Coimbatore Seminar. He observes "...I must say that I am appalled at the lack of a data base that we face on this vital area of National and State action...I do not know how many persons are unemployed and how many underemployed and if this is not known, how can we discuss causes and cures, how can we formulate employment policies and programmes?" We would agree with the above statement and suggestion that each State Governmnt should "...establish an annual survey of the unemployed and underemployed by sex, age, geographical location, number of hours worked, income earned and educational qualification, by village, by block and by district..." *

6.4. Until such survey is undertaken and the results are made available, there is no other alternative but to rely on the imperfect data available at hand to analyse the problem of unemployment. If the total number of work seekers (including educated unemployed constituting 48.5 per cent of the total number) on the live register of employment exchanges is taken as a rough indicator of unemployment in the urban sector, it comes to 5.02 lakhs at the end of 1972-73 as against 4.67 lakhs at the end of March 1972. On the demand side, there was a decrease in the number of vacancies notified in 1972-73 which was 52,100 as against 55,600 vacancies in 1971-72. As judged from the live register of employment exchanges, the level of unemloyment has more than doubled during the Fourth Five Year Plan.

6.5. *Educated unemployment* : The employment exchange data on educated unemployment may be treated as somewhat more reliable than the data on the total unemployment in the urban sector. If the number of *matriculates, graduates* and post-graduates on the live register of employment exchanges is taken as a rough indicator of educated unemployment, there were 2.86 lakhs of educated unemployed in December 1973 as against 2.16 lakhs in December 1972. There has been an *alarming increase in the number of educated unemployed* which has more than doubled between 1969 and 1973. The employment exchange figures of graduates and postgraduates on the live register reveal an important phenomenon which runs counter to the popular conception. In the *year 1973, the number of unemployed* science graduates was double that of the arts graduates and the number of unemployed postgraduates in Sciences was slightly greater than that of the unemployed postgraduates in the Arts. Thus, the level of unemployment is higher among the Science Degree holders than among the Arts Degree holders exploding the myth that the former enjoy better job opportunities than the latter.

6.6. The problem of educated unemployment has already assumed menacing proportion and if it is allowed to drift, the situation is bound to become explosive. The problem has to be tackled by taking simultaneous action on both demand and supply sides to increase the job opportunites and control the ontput of

* **Malcolm Adiseshiah : "Bulletin, Madras Development Seminar Series", April 1974, pages 322-26.**

unwanted graduates. The State Government, being alive to the seriousness of the problem, has initiated many-sided programmes to absorb the educated unemployed in productive occupations. Some of these programmes are: (i) Youth Service Corps; (ii) Special Apprenticeship Training Programme and Loan Assistance Scheme for Craftsman and (iii) Various schemes under Half-a-Million Jobs Programme. If these and other schemes are successfully implemented on a sufficiently large scale, adequate demand could be generated to provide employment to the educated unemployed.

6.7. As to the supply aspect of the educated unemployed, the entire system of school and university education should undergo a thorough-going and radical change and a new pattern of education consistent with man-power requirements should be implemented. In recent years, a vast quantitative expansion of education, matched only by an equally vast qualitative deterioration, has taken place. It is high time to stop quantitative expansion and to initiate measures to improve the quality of education. The number of seats in various courses and colleges must be determined primarily on the basis of the requirements of the economy and admission to different courses must be limited to the students who have the requisite merit and aptitude. The Government and the Universities of the State must act now with a sense of urgency to refashion the educational system along the lines suggested by the excellent blue-print "Towards a Learning Society"[12] in which the details of a job-oriented, aptitude-oriented, and goal-oriented educational pattern with an unashamed bias towards merit and excellence are admirably worked out.

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Summary of Discussion

In the discussion of the paper at the Seminar held in the Seminar room of the Institute on Thursday, the 30th of January, under the Chairmanship of Rev. Fr. A. Devasia, Professor and Head of the Department of Economics, Loyola College, Madras, the paper was introduced as an appraisal by the Chairman. The author in presenting the paper stated that the Economic Appraisal of Tamil Nadu 1974 document contained the data for 1972-73. An evaluation of the State economy requires information on sectoral and fiscal targets. But these were provided in the Annual plans only for agriculture and power, while for the rest of the items, targetted figures of expenditure only were given. Further these figures do not tally with those given in the Fourth Five Year Plan of Tamil Nadu. The data provided in the Appraisal were a limited comparison with the previous years. The performance of the State in growth was negative at—0.2 per cent and was below the national figure of 0.4 per cent. Similarly the per capita income of the State declined in 1972-73 over the preceding years by 2.1 per cent. The performance of the various sectors were also unsatisfactory with shortfalls in the primary sector,

industrial stagnation and power deficit. A serious question posed was whether in view of the fact that the increase in per capita income was only Rs. 38 over the period 1960-61 to 1972-73, the Perspective Plan objective of doubling the per capita income by 1984 is feasible. The Appraisal explanation of the retrogression in 1972-73 as primarily due to set back in the primary sector due to unfavourable weather and industrial stagnation owing to shortages of raw materials and distribution and transportation bottlenecks, if uncritically accepted would obscure the deeper causes underlying the State's depressing performance. An analysis of the decline in primary sector shows an actual increase in paddy production and marginal increase in millets while the drop has been in the commercial crops—sugarcane, cotton and groundnuts. Regarding sugarcane production as it is grown in areas with assured irrigation there is a strong possibility of the lower production being due to the economics of sugar production and the withdrawal of exemption from the land ceiling limit for plantation owners. In the areas of animal husbandry, fisheries and forestry the shortfalls were basically caused by poor quality cattle, insufficient attention to marine fisheries development and diversion of forest areas. In agriculture the development has been in the modern sector with the use of HYV seeds, and modern package of practices. Another factor is that Tamil Nadu has utilised most of its irrigation resources. To really achieve a green revolution in the future, inter-state water resources would have to be tapped, calling for the required political leadership to make the arrangements and agreements. Patterns of paddy production could keep the Japanese methods in view as these were more labour intensive than in Tamil Nadu with its higher ICOR and achieved 4 times the yield—a spin off would be the near elimination of rural unemployment overt or disguised. Further suggestions for improved growth in the primary sector are:—(1) development of dry farming technology with greater use of drought resistant seed strains and fertilisers (2) increased production of fertilisers by establishing mini-plants on the Chinese model (3) a more purposeful land reform with emphasis of the tiller owning the land. In this connection our land redistribution programme has been a failure. Over the years from 1961, only 31,000 acres have been available for distribution while the total cultivated area is 156 lakh acres. Under the present ceiling law, atleast 1.5 lakh acres should be available for redistribution, (4) consolidation of fragmented holdings for efficient cultivation. Our planning assumptions to-date have been based on normal and favourable weather conditions. In light of the experience, our plans must be structured to meet adverse conditions also. Industrial production declined in 25 out of 46 Public Sector Industries, increases being registered only in consumer oriented industries. Shortfalls in this sector has been attributed, to short age in raw materials, power deficits and transport bottlenecks, in the Appraisal document. It should, however, be pointed out that the shortages in themselves are due to faulty planning and lack of foresight. Other key factors for the lag are insufficient investment by Centre in the Fourth Five Year Plan and idle capacity. Power cannot be singled out as a single major factor for poor performance. Analysis reveals that there has been a tremendous increase in the installed capacity of power in the State, which amounts to half that of the Southern Region and four times that of Kerala, which is a power surplus state. The real problem with regard to deficits and periodic power cuts is that demand has been allowed to expand, widening the gap between demand and supply alongside of very high trans-

mission losses. Data available on unemployment and underemployment does not seem to reveal the real magnitude. The number of educated unemployed has doubled in the Fourth Plan period. A curious feature is that in Tamil Nadu the number of unemployed science graduates is almost double that of Arts graduates and amongst the post graduates there is greater unemployment among science students. It is time to consider whether money being invested in higher education could not to be more gainfully employed in other areas, restricting admission to higher studies on merit, need and aptitude. The recommendations in the Task Force Report on Education, Science and Technology should be implemented without delay.

During the discussion that followed it was pointed out that the Appraisal document is a statistical frame and provided basic source material on which economists and scientists could work, although analysis in depth and an effort in evaluation were lacking in the document. One of the significant issues which merits study is whether the welfare of the people of Tamil Nadu has increased, to which there is no direct answer in the Appraisal. One indicator of welfare would be the number of people below the poverty line. The figures in Table 1 of the paper on national and per capita income based on quick estimates of C. S. O. has since been revised by C. S. O. and present an even more sombre picture. With regard to the misgivings expressed about the doubling of per capita income in view of the actual rate of increase of Rs. 3/- per year to-date, its achievement is possible; the quantum jump in development as spelt out in detail in State's Perspective Plan can happen if investment implementation and policies as set forth are followed. The comparative percentages set forth in Table 2 are not very satisfactory as the relevant weights for other factors were not specified. The need for contingency planning, particularly in the primary sector, is imperative and underlined by the experience of recurrent monsoon failures. This form of planning could be materially assisted by the kind of information our scientists can provide in the shape of weather forecasting. Any labour intensive method as in Japan could be fostered to generate greater employment. Increase in fertiliser plant was inadvisable in view of crude shortage. Further the problem is chiefly one of distribution of available stock rather than enhancement of production. Land redistribution programmes have been impeded by cumbersome procedures and legislative loopholes. The lag in the economy due to fall in industrial production is also serious. Here the picture is not complete as there is no reli able information about the private sector as 90 percent of industry falls within it. Some regular organised information in this field is necessary. A query was raised about the extent to which the Perspective Plan formulated by the State Planning Commission has been included in the Fifth Plan presented to the Centre and the extent to which the realisation of the necessity for a change of approach to planning had affected actual programmes. In this connection it was pointed out that erosion of resources owing to inflation and exogenous factors had led to a reduction in the allocation of resources by the Centre and had affected overall development. At State level the decision to re-impose prohibition and abolish racing had made further inroads into projected resources. An observation was made that low per capita income may be due to population growth and a reference was made to the cultural patterns which made implementation of population control policies difficult. In the eontext of improved agricultural practices, attention was drawn to that fact that the Japan-

ese method has been in use since 1953 particularly for HYV. Modern agronomy emphasises the importance of plant nutrition and protection conjectively with water management which would stabilise high yields and reduce dependence on fertilisers. Regarding current developments in plant research, new varieties of sunflower and short duration ground nut crops were mentioned, as well as the new varieties of paddy IR 28, IR 29 and IR 30. It was further observed that the Japanese package of practices was not adopted in full in Tamil Nadu. A special feature of Japanese cultivation was the use of tractors of small capacity. The larger tractors in use here in the Districts have work only for about 145 days a year. Another disincentive is the low prices received by the farmer in India compared to his counterpart in Japan whose return is one-and-a-half times the input. A specific instance cited was sugarcane prices in Tamil Nadu till recently. A revision of ex-farm prices is indicated.

The paper was commended as a clear and realistic review of Tamil Nadu economy in 1973, identifying areas in which special effort is necessary. Restructuring of planning, anticipating contingencies of weather variations, revision of price policies in favour of the producer in the primary structure, choice of practices which were employment intensive to counter unemployment which has risen during the four Five Year Plans, and specific use of science and technology in the planning processes were the main elements emphasised.

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NON-ACHIEVEMENTS AND ACHIEVEMENTS

VALEDICTORY

We have now come to the closing moments of the 57th Annual Conference of the Indian Economic Association. I would like at this rather solemn moment to look back on the 3 days that we have spent together and attempt an interim audit of what we have not accomplished and what we have achieved.

What we have not achieved

We have not achieved on four fronts:

Geographical Incompleteness:

Our first non-achievement is our geographical incompleteness. We have not in this Conference lived up to our calling as an all India organisation. There are several large gaping holes in the Indian economic fraternity assembled here. We have no economists from Kerala and its flourishing schools of economic reflexion and research. We have no one from the Hill States of the North East which is our neglected, disinherited and discriminated intellectual poverty pocket. We have no one from the great Punjab, which has been the demonstrator of the economic miracle for our country and a reminder to us and to all the developed and underdeveloped world that the developing countries are not, because of their so-called value systems, and in-built soft structures, fated to remain underdeveloped This geographical lacunae is also an intellectual lacunae in the reinforcing conceptual circle which the Association represents.

Technical Lack:

Our second non-achievement is technical. We have not spent enough time on the major purpose for our coming together here as a conference at Andhra University, Waltair. Out of the 72 hours that we have spent together at this rendezvous, we have devoted only five and a half hours to the technical task of probing into the problems arising from the use, nonuse and misuse of welfare concepts and tools, the limits and deleterious effects of the price policy— if there is a policy—followed in the country and the uncertain area of the definition of a region and the goals and strategies of spatial development. This has not been conducive to serious, satisfactory and satisfying study of our three basic themes.

Managerial Lack:

Our third non-achievement has been in the managerial area. It may be that a similar time constraint limited our work in the valiant attempt that we made to put our organisational and administrative house in order.

Moral Lack:

Our fourth non-achievement is of a moral order. On the one hand there was a close camaraderie, comprehension and intellectual companionship in the substantive discussions which we have engaged in, in the three sections over the three days. On the other hand, in our General Body and Executive Committee work, we seem in our discussions and exchanges to bring an air of suspicion, doubt, and general negativism leading, on some occasions, to

* Valedictory Address by Dr. Malcolm S. Adiseshiah, President, Indian Economic Association, to the 57th Annual Economic conference at Andhra University, Waltair on Sunday 29 December 1974.

the demand for blood and raw meat (which I had to sarisfy)—which possibly highlights our dualism as economists. On the one side we are on the side of angels when we engage in professional and economic dialogues and exchanges while on the other side we appear allied to the messy horned one when called upon to act as managers and administrators of our own household management and its ordering.

What we have accomplished

I now turn to our achievements.

Marching Orders :

One solid result of our meeting is that we go home with a list of unresolved and controversial areas in Welfare Economics, Price Policy and Regional Economic Development. We have also established as a body and each one for himself or herself an inventory of unfinished business facing us economists. Here is my list gleaned from the final reports of the three Section Chairmen :

1. Paretan optimality and our states of non-competitive non-equilibrium.
2. Brute facts of inequality and the refined and refining tools of optimality.
3. Various facts of utilitarianism and Indian poverty.
4. Realistic goods of price policy in India.
5. Factors responsible for inflation.
6. The pressure groups embedded in our pricing system.
7. Definition of a region.
8. What is backwardness in a region.
9. The quantum of congruence and divergence in inter and intra regional disparities.
10. Development of techniques for the identification of decision-makers in a region.

Professionalisation :

A second major achievement was the first tentative but decisive step that we have taken towards the professionalisation of our Association. This could be a historic decision that we made after a great deal of hunger-stricken debates, emotional quarrels, tearing of hair, gnashing of teeth and scratching of each other's eyes. It could be a historic decision because we have

(a) given ourselves a new constitution which represents the new machinery and restructured mechanism in order to spend more of our time as an Association delving into some of our urgent pure and applied economic problems,

(b) through symposia, seminars, workshops, fellowships and publications which will enable us to co-operate more closely in an organised and ordered manner with one another as economists in this vast land and with our fellow economists from outside the country.

I have talked about the professionalisation of our Association which I bequeath to you in the form of a constitution that you have adopted and the programme for 1975 which you have rather hastily approved. I would like to summarise for you the seven-point programme that I have helped you to start with. First, the 58th Annual Conference will be held between October and December in probably Kurukshetra around the three items—theory, policy and Indian economy that will be established by the officers. Second the Indian Economic Journal in Volume 23 will be issued in four numbers plus a special Conference number, continuing this precious programme heritage of ours. Third, a symposium on "Economics Teaching and Economics Research in the University" will be organised for 20 economists in March/April

1975 in co-operation with the U.G.C. by Dr. S. N. Sen, one of our Past Presidents and currently Vice-Chancellor of the Calcutta University. Fourth, a workshop on "Concepts and Measurements of Rural Employment, Theoretical issues and methodological studies" will be organised by Dr. K. N. Raj, also one of our Past Presidents and currently Senior Fellow, Centre of Development Studies, Trivandrum, jointly with the I.C.S.S.R. Fifth, the programme of writing up the history of Indian Economic Thought launched in 1974 will be continued in 1975. Volume I is the History of Indian Economic Thought from Raja Ram Mohan Roy to Gandhi that is being completed by Dr. B. N. Ganguly, one of our Past Presidents. Volume II is an analysis of the conceptual contribution made by 50 Indian Economic creations since 1920 that is being written by Dr. Brabtosh Datta, whom we have elected as our President for 1975. Both Volumes are financed by grants from I.C.S.S.R. Volume III is the Trends in Economics Research in India since Independence that has been completed by the I.C.S.S.R. under the direction of Dr. Lakdawala and that is under publication. These 3 volumes should form part of the corpus of learning at the post-graduate level and I suggest to the Association that when the volumes are ready, one single shortened version should be published for use as an integral part of our under-graduate curriculum. Sixth, we shall make a small start next year in our publications programme by publishing the papers and conclusions of the 1974 Seminar on "Improvements in Teaching of Economics" under the editorship of the Seminar Chairman, Dr. B. Sarveswara Rao, seventh, we shall continue next year inviting our economic colleagues from abroad under the Visitors and Professorship scheme of I.C.S.S.R. and as we have invited economists from Europe and America this year. I propose (and I have already engaged in correspondence for this purpose) that we invite professors from Asia and Africa—Pro. Nurul Islam, Deputy Chairman, Planning Commission, Bangla Desh, Professor Tunku Aziz, Vice-Chancellor, University of Malaya, Professor Kamiya, President, Economic Association of Japan and Dr. R. Gardiner of Ghana, currently Executive Secretary, Economic Commission for Africa. In addition, thanks to the visit to the World Congress of Economists, and contacts established by our Hon. Secretary Prof. V. Shanmugasundaram, we will also have visits to the country during the next 2 years of Lord Robbins, Professor I.M. D'little and Professor J.A.C. Brown, Sir John and Lady Hicks of Oxford, Professor Prest of LSE, Professor Edmund Malinvaud and Professor Paul Rasmushen of Denmark Professor Myrdal of Sweden and Dr. John Williams Mellor and Dr. Paul Samuelson of U.S. In leaving you this programme, I pass on to you 3 thoughts. First, the 2 Seminar themes Employment and Economics Teaching and Research, should be a continuing annual activity, at least during the Fifth Plan, if we are to make a dent on these two live issues. Second, just as Bombay is making its contribution to the Association through editing the journal, we now look forward to Calcutta and Trivandrum making their contribution as part of a design to spread our activities to all Centres of economic thought and research in the country. Third, finance is not a problem as far as programmes are concerned. Here we get adequate project grants. However, I have not succeeded in raising funds for the overhead costs and that should be the target of my successor in Office—and that is Rs. 10,000/- for one meeting of the Executive Committee between meetings of the Annual Conference and Rs. 25,000/- for a small Office attached to the Hon.

General Secretariat to ensure a minimum of service to the members of the Association.

The Human Encounter:

A third and final achievement is the human encounter that this Conference represents. And that is probably the lasting result of this rendezvous. When all the resolutions that we have adopted are lost in the non-archival archives of our non-existent secretariat, when all the carefully prepared papers printed in the Conference Number of the Indian Economic Journal are moth-eaten and wither away, when the Presidential address and the reports of the Chairmen-Rapporteurs of the Section have faded from memory with the remorseless march of time, what will remain is the ideas that we have trodded and made our own, the human beings that we have encountered and the friendships that we have formed. Within this unforgettable human encounter, certain human faces will remain indelibly imprinted in our memories. I carry away with me the beloved images of

— the hardworking, ever-smiling and self-effacing Sarveswara Rao,

— the courageous, lion-hearted inaugurator Raju,

— that tower of strength, the indomitable Bullayya,

— the indefatigable, conscience-prodding Khullar,

— The embodiment of economic and human wisdom of the trinity Lakdawala, Jha and Misra,

— the triumphs for the cause of human equality and human rights represented by the first woman, the first young woman economist to preside over and report on a Section, Uma Devi,

— the massive Bhima of economics in India, Brahmananda.

— the enduring and endearing Anisur Rahman from Bangla Desh, Reddaway, Frank and Dorothy Hahn from the U. K.,

— the puckish pungent Joseph,

— the solid and abiding Nanjundappa,

Parthasarathy and Gautam Mathur, and a whole host of others who represent the human face that will be accompanying us for our lives.

Thanks: And it is at this point that I want to place on record our very warm, deep and unrequitable thanks:

— to the State and people of Andhra Pradesh for their warm and generous hospitality,

— to the city and people of Visakhapatnam first for being Visakhapatnam and its many generous donors who financed the running of this Conference, the large dollops of food served to us, the comfortable houses in which we were accommodated, the efficient transport services and the enjoyable entertainment that we have been exposed to,

— to Srimathi Sumathy and Srimathi Arundhati for their generous self-giving in their artistic creation and excellence which lifted us to levels of spirituality which our flagging bodies needed,

— to Mr. Bullayya and Mr. Appa Rao, our stalwart supporters and all our friends of the Reception Committee, led by Mr. Parthasarathy who received us and saw to all our needs,

to our beloved Mr. Sarveswara Rao, who, but for the healthy convention, to which we should always adhere and which was a major point of insistence of Dr. Sarvaswara Rao himself, that the Hon. Local Secretary should not be elected to the position of President or Hon. Secretary & Treasurer, now the Vice-Presidentship of the Association, would have been unanimously elected as our President for 1975 and which I call on you to bear in mind in electing the President for 1976, and all the staff and students of Andhra University who worked as volunteers, Office Staff and in other positions for the expeditious transmission of our work,

to the loud-speaker operator, our bus-drivers, chauffers, the serving staff in our houses and hotels, to the Deputy Warden and the dining room staff who in addition to their arduous tasks performed willingly, demonstrated their patience and sacrifice in serving us our dinner last night from 11.30 p. m.—1.30 a. m.

to my colleague and friend, the Hon. Secretary and Treasurer, Prof. V. Shanmugasundaram, and the man behind the scene Mr. Ayyasami who sustained, guided, followed and supported me during the whole year in the many complex tasks that I had to address myself to,

to the members of the Executive Committee who fed me with their experience and wisdom and the Chairman-Rapporteurs of the 3 Conference Sections who guided me in steering the Conference,

to Sukhmoy Chakravarti and our fellow economists of the Indian Society of Labour Economics who enriched our deliberations through meeting concurrently with us,

And a word of very warm good wishes for an eventful programme year to our President for 1975, Mr. Bhabtosh Datta, Vice-President Mr. Gautam Mathur, the Hon. Secretary & Treasurer, Mr. Shanmugasundaram, and the Members of the Executive Committee and the Editorial Board of the Indian Economic Journal.

Adieu : And so as we go home with the enriched minds that we have gained, with areas of investigation clearly marked out, and with the lasting human friendships forged, my adieu to you is in the form of a three-point concluding statement ;

First, to tell you how much I have enjoyed and learnt in my service to you this year as your President and to pledge my continued service, co-operation and loyalty to the Association in the tasks ahead,

Second, to appeal to you to use the Association as the instrument for the professional development of the fraternity of economists, particularly the younger economists and women economists, and for this give yourselves more time in your Annual Conference to delve into the 3-subject themes that you have chosen, to see to it that the selected themes are defined more precisely and pointedly so that the potential paper-writers will have clear guidance as to what they are to research and write about and the discussants on the key papers who should be appointed at the time the Conference Number comes out will have guidelines against which they can

introduce the section discussion, and give yourselves more time in your Executive Committee and General Body meetings to decide at leisure on the vital managerial and administrative mechanics and house-keeping chores needed to keep this great organisation and its sacred mission alive, renewed and growing.

Third, to call on you and me as economists to use our economics teaching, tools, research and reflection and our policy advisory functions to banks, business firms and governments to serve unflinchingly the national objective of eradicating poverty by beginning with us economists sharing poverty.

Such is the blessed perspectives of us economists and for this great calling to which we are called, I bless you, so that you may bless and be blessed.

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I declare the 57th Annual Conference of the Indian Economic Association herewith adjourned.

BOOK-REVIEW

(i)

Co-operative credit and Agricultural Development

Author: MAHFOOSUR RAHMAN

Publishers: Sultan Chand & Sons, Delhi

Price Rs. 30/-

Pages 206

The book which has been written in a lucid, pleasant style, deals with the role of co-operative credit in the agricultural economy of the State of Jammu and Kashmir, in all its aspects. The agriculturists of Kashmir, who are seeped in indebtedness and are backward, are not able to produce enough to meet the food requirements of the State which is dependent on the Centre in an increasing measure partly due to the growth in population and partly due to the backwardness of agriculture in the State.

It is against this background that the author attempts to examine the need for and the importance of co-operative credit for aiding the development of agriculture in that State. After tracing the causes for the low agricultural productivity such as farmer's inability to purchase chemical fertilizers, lakh of improved practices, absence of double cropping, uncertain character of the monsoon, poor live-stock and unusually small holdings (average size of holding per capita being 0.64 acres), exploitation by money lenders, lack of technical education and training amongst the farmers, absence of adequate transport and warehousing facilities and the presence of middlemen, the author concludes that to enhance agricultural productivity and production a complete transformation and reorientation of the agricultural sector through an evolutionary process of economic development by means of co-operatives is the only solution to the problem.

It is true that where the money-lenders and middlemen dominate the rural credit and distribution system, the co-operative agency has to be increasingly brought into the picture to remove their hold on the agriculturists and effect improvement in the returns to the producers by providing cheap credit and marketing arrangements. The author points out that as yet marketing is a neglected field and he pleads for the linking of credit and marketing. *But the question of why the movement, which is many decades old, has not spread to cover a major part of the activities connected with these arrangements have not been answered adequately.* This may help to make co-operation succeed in the future even if it has failed in the past.

The author has made the pertinent observation that the record of co-operatives indicates that after several decades of their working, they provided only 3.1 per cent of the total requirements as mentioned in the Report of the All-India Rural Credit Survey Committee. He therefore suggests that nationalized banks should invest more and more in agriculture and this to be channelled through co-operatives. How far the nationalized banks will be prepared to channel their funds through the co-ope-

ratives is a moot question. Unless they are convinced of the viabiilty of the co-operatives and the honesty and credit-worthiness of the members of these societies, they cannot be expected to risk their capital.

Dealing with the organisation and functions of the primary and district co-operative organisations as well as the State Co-operative bank, the author is right in pointing out the many deficiencies that plague them. In particular, his study of the loans and deposits position reveals the failure of deposit mobilization by the co-operatives and their excessive dependence on higher financing institutions for most or all of the funds. This brings to light the organisational deficiency which is the root cause of the failure of these societies to come up to expectations, viz, the inefficient leadership which is at the helm of affairs in the primary and district organisations : "The process of election more often than not turns up men who are ignorant of the essentials of banking operations, besides being unlettered and not quite competent, in the technique of administration and management of banks. Much less is their knowledge in matters relating to the development of co-operative banking."

A very distinctive feature of the book which is both useful and enlightening for policy making in respect of the future growth of the co-operative movement in the State is the profusion of statistical tables which illustrate various aspects of the co-operative organisation and its operation in the State. The statistical analysis of the organisation and functioning of the co-operative movement in the State as presented in the pages of this book is an eye opener both to the student of co-operation and the administrator.

The book is well laid out with 8 chapters and the theme has been methodically developed and a set of recommendations have been included in the chapter on evaluation of the agricultural co-operative credit. It is an example of how a useful study of the functioning of the co-operative movement could be made in any State of India to aid policy makers. The book deserves to be read by all those interested in making co-operation an ally of the small agriculturists.

T. C. Mohan.

The Impact of Film on Society

(ii)

Published by the Centre for Social Research, Madras

Date of publication. October 1974 Page : 217

Price : Rs. 10/-

The research study on 'the impact of film on society' undertaken by the Centre for Social Research, is an assessment of the sociological political and cultural changes that have taken place in Tamil Nadu through the exhibition of Tamil films on a mass scale. A statistical and analytical attempt has been made in this study to highlight the impact of the film as a pre-eminent mass medium of communication on the several facts of social life in Tamil Nadu.

The object of this research study is to concentrate on the inherent potential of the film as a useful tool for permeation and percolation of ideas and its recent exploitation by the political parties and social thinkers for their particular purposes. With statistical evidence, the thesis of the study is that films in Tamil Nadu are used for political purposes and propaganda.

The research study is divided into 3 chapters. The first chapter "Evolution of film as a mass medium of communication in Tamil Nadu" is an outline of the history of Tamil films. The trend is shown how films have become politically motivated while at an earlier stage they were based on mythological traditions or aimed at an ethical message.

Chapter II focuses on the socio political content and impact of the Tamil films. This chapter relates to the sociological and cultural impact of films on Tamil society and, the growth of political awareness among masses achieved through projecting political ideologies of local, or regional or national character. It is pointed out that films helped in the building up of political base of the regional parties in the State.

In chapter III 'the findings of the Audience survey' is presented through analysing classified tables of data relating to general characteristics of social, economic, political and regional significance.

On the basis of statistical data it is concluded that the political exploitation of film as a mass medium has been far more vigorous than its promotive use for initiating and building up a healthy awareness of social problems that inhibit Tamil society. In support of this view, 22 statistical tables are presented to have an unbiased view of Tamil Films

Film sare used as a sustained mass medium of communication. This study, the first of its kind for this State, starts with and makes explicit its value premise. Whether that premise is proven is for each reader to judge.

MISS MEENA KUMARI

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Publishers : (from whom copies may be ordered)
M/s. Sangam Publishers,
11, Sunkurama Chetty Street,
Madras-600001.

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1. Income Earning Trends and Social Status of the Harijan Community in Tamil Nadu
   By A. Vagiswari (Price Rs. 12/-) Demy 8VO
2. Economics of Dry Farming in Tamil Nadu
   By R. K. Sampath and Jayalakshmi Ganesan
   (Price Rs. 15/-) Demy 8VO
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   By Rajammal P. Devadas (Price Rs. 15/-) Demy 8VO
4. A Guide to Research in Economics
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   Edited by Malcolm S. Adiseshiah. (Price Rs. 9.40) Crown Quarto

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8. Poverty and Wage Goods Supply in Tamil Nadu (Price Rs. 20/-) Demy 8 VO
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10. Minor Irrigation in Tamil Nadu
    By G. Venkataramani (Price Rs. 20/-) Demy 8VO

II. * In print :

11. Small Fishermen in Tamil Nadu
    By C. Selvaraj

III. Future Publications :

12. Rural Employment in Tamil Nadu
    By J. Viswanathamurthy
13. Introduction to Mathematical Economics and Economics Statistics
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